### United States

# Circuit Court of Appeals,

FOR THE NINTH CIRCUIT.

Wilson & Willard Manufacturing Company,

Appellant,

US.

Union Tool Company, et al.,

Appellees.



APPELLANT'S REPLY BRIEF. JUN 27 1517

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No. 2996.

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#### APPELLANT'S REPLY BRIEF.

Pursuant to permission granted appellant on the argument of this case, and to order made subsequently extending the time during which this brief might be filed, appellant presents this, its reply brief, and takes liberty again to call the court's attention to the fact that appellant's opening brief was by force of circumstances prepared and filed prior to the completion of printing of the record or of the paper exhibits, rendering it necessary to somewhat more elaborately reply than the brief of appellees on its face would seem to make it necessary.

Just as we had surmised, counsel for appellees has found it utterly impossible to make a logical or sound reply to any one of the several main points upon which our defense is based as set forth in our opening brief. In fact two or three of the most vitally important points urged by us in our opening brief remain entitely unanswered and not even mentioned by counsel for appellee in his reply brief. The inference is, of course, clear that he had no answer to offer to those prints, and that to attempt to do so would only emphasize the weakness of his case. A few of the other points he has endeavored to answer by misstatement of facts, fallacious statements of the law, and absurdly distorted applications of the rule of the Doctrine of Equivalents, or by relying upon the bias and prejudiced testimony of their so-called expert witnesses Griffin and Knight. Counsel for appellees has evidently even regarded such means as insufficient for we find him resorting to what we might term examples of clumsy legerdemain whereby he evidently endeavors to so deceive the eves of this court as to cause Your Honors to believe that the reamers he describes have entirely different form and different principles of action and modes of operation from those which are clearly disclosed by even a casual observation of the devices themselves. Again, in reply to other of our points he merely makes a few totally misleading statements and then immediately bends every effort to divert the attention of the court to something entirely foreign to the point in question.

In short counsel, having found it folly to rely on the facts according to the testimony and evidence in this case, and upon the law involved, has sought the means mentioned above in the desperate hope that he may avoid a reversal of the decree of the lower court.

We are entirely convinced that counsel for appellees will find it utterly impossible to deceive this court, and that his bold efforts to do so can do nothing other than reveal the insupportability of his cause. His case is unsound and no doubt had it been tried before a court experienced in patent law and patent matters (we believe this was the first case involving patent law ever heard by Judge Cushman) it would certainly have been dismissed. At this point we wish to state that we have the fullest appreciation of Judge Cushman's care and painstaking efforts to do justice in these two interrelated causes.

By our opening brief and on argument we pointed out to Your Honors that the Double Underreamer Patent #734,833, namely, the patent in suit, had been fraudulently obtained by Mr. Double; that Frederick W. Jones, an inventor of some considerable ability, was at least a co-inventor of the Double underreamer in suit; that at that time he had made no claim for any interest therein, believing that the inventions of an employee belonged to the employer.

We also argued that the principal elements and combination found by Judge Cushman to be the chief and novel features of the Double invention, instead of being the invention of Double, as he stated in the decree, were in reality the invention of prior inventors, namely, Brown, Jones, O'Donnell & Willard, Swan, and others; we also argued that the Double underreamer covered by the patent in suit was merely a transitory step in the

art, a highly unsatisfactory device at best and was soon abandoned upon the advent of appellant's underreamer, in 1905. That it never did take the field to the exclusion of other underreamers, such as the Austrian underreamer, the Swan underreamer, Plotts underreamer, etc.

We also argued that in view of the prior art, which had been thoroughly misunderstood by Judge Cushman, and in view of the abandonment of the Double underreamer and its failure to supersede other reamers, and further, in view of the fact that instead of enabling deeper drilling it simply followed in the wake of deeper drilling occasioned by the greater demand for oil, the use of the calf wheel, heavier casing and wire lines; and that accordingly it was not entitled to the benefit of being a pioneer invention and not entitled to a broad application of the rule of the Doctrine of Equivalents.

We also added that the Double patent was a narrow combination patent containing nothing but very limited claims, combinations of admittedly old elements.

We argued also that the Double patent covered the particular combination of elements disclosed by the Double patent and nothing more, and that even by the allowance of a liberal application of the Doctrine of Equivalents the Wilson underreamer could not be held to infringe the Double patent for the reason that it is constructed upon entirely different principles, combining new and novel elements, and is an entirely different organization of elements and is based upon different principles of action and has different modes of operation.

We argued also that the Wilson underreamer was

the first "completely" successful underreamer ever manufactured; and that the Wilson patented lug construction, the Wilson shanked cutters with retaining shoulders on such shanks to coact with retaining means on the body, also having broad cutter-head, such construction enabling the use of stronger cutters, greater expansion and greater collapsion of cutters, assembling at the bottom, and remachining of reamer body, were new in the art and are the novel principles upon which all successful underreamers must be founded.

We also pointed out that the Wilson underreamer was promptly recognized as the only completely successful underreamer on the market; THAT IT IMMEDI-ATELY SUPERSEDED THE DOUBLE UNDERREAMER; THAT THE DOUBLE UNDERREAMER WAS PROMPTLY ABANDONED AND THAT APPELLES FROM THAT TIME ON CEASED TO MANUFACTURE THE DOUBLE UNDERREAMERS AND IN ITS STEAD MANUFACTURED UNDERREAMERS JUDGE CUSHMAN HAS FOUND TO BE INFRINGEMENTS OF THE WILSON PATENT. Strangely enough Judge Cushman still designates these infringing reamers as "Double Underreamers," and by giving them the credit for having taken the field, gives Double the credit for having invented the reamers "which constituted combinations of decided merit, entitling complainants to a fair range of equivalents," and that "eighty-five per cent of the underreamers sold are either of the Double type or that of the alleged infringing device." In short he gives those underreamers credit for still being the Double underreamer and at the same time proclaims them to be infringements of the Wilson underreamer patent!

Was ever such a peculiar and weird fallacy brought to the attention of this Honorable Court? Clearly the lower court erred in giving Double the credit for being the inventor of those underreamers or for holding that they were the underreamers disclosed by the Double patent.

JONES AT LEAST A CO-INVENTOR OF THE DOUBLE REAMER IN SUIT.

In counsel's reply brief counsel has again found it necessary to deny that Iones had anything to do with or contributed anything to the so-called Double invention. In view of the extreme importance of this point of our defense, we wish to take the liberty of considering that point even more fully than we have done in our opening brief. We are convinced that we can prove to the entire satisfaction of Your Honors that Judge Cushman, when declaring that certain testimony of Frederick W. Jones, while a witness in a prior case (which testimony was read in open court by counsel for appellees, entirely discredited the testimony of Mr. Jones given in open court in this case, was entirely mistaken as to that testimony, and we will further show that that particular testimony was in exact accord with the testimony of Mr. Jones given in this case.

That the error of Judge Cushman was due to a misconception of a certain incident referred to in that testimony, having it confused with another incident referred to by Mr. Jones when testifying in open court, is obvious. Had he realized that the testimony quoted

had reference to an entirely different incident, the situation would have appeared altogether different to him and he certainly could not have held Jones' testimony in this case to have been discredited by the quoted testimony.

With the exception of the quoted testimony from the prior suit, plaintiff relies entirely upon the testimony of Double himself and four of his long trusted employees to establish that Double and not Jones was the inventor of the Double reamer in suit. Is it not notable that not one syllable of evidence from any disinterested witness do they introduce on this important point? The inference is that any evidence on the matter procurable from disinterested parties would establish Jones and not Double to be the inventor of the underreamer in suit.

The witnesses John A. Richardson and William G. Naugle, who testified in our behalf on that matter, are the only parties who were employed in the Union Oil Tool Company's shop under Mr. Double at the time that underreamer was invented AND WHO CAN BE SAID TO BE ENTIRELY DISINTERESTED WITNESSES.

Richardson testifies unqualifiedly that he saw Jones making the drawings for that reamer in the office of the shop—Double's office.

Double testified in reference to the conception of the first so-called Double reamer, viz, patent #796,197, T. of R. page 955:

Q. 3. "I show you Complainant's Exhibit Double Patent No. 796,197. You are the Edward Double named therein, are you?

A. Yes.

Q. 4. Do you know who first conceived the construction of an underreamer as therein set forth and described?

A. I did."

Also see statement in ans. to Q. 5, page 956:

"I made all the sketches and all the drawings or socalled drawings there were to manufacture the reamer."

Also page 957: "Jones did no work on that reamer to the best of my knowledge."

Again T. of R. page 959:

"I received no suggestions from Fred W. Jones concerning design of underreamers, 'Complainant's Exhibit Double Patent No. 796,197' or 'Complainant's Exhibit Double Patent,' being the patent in suit #734,833."

The four employees, viz, Dinger, Buffington, Terriberry and Youngken, all echo Double's contention that Double was the sole inventor of these reamers and that Jones had nothing to do with them and did not work on them in the shop.

Note how completely they are refuted by Richardson and Naugle, both of whom were employed in that shop at that time, but who, unlike the witnesses just mentioned, are in no wise associated with either Double, Jones or Wilson, and are well respected citizens engaged in business in Santa Paula. Their word must be far more convincing than that of Double and his faithful employees.

See testimony of Richardson, T. of R., page 949:

"Am acquainted with Frederick W. Jones, having known him since my arrival in California. He was a machinist in the Union Oil Tool Company's shop at the time I went there. I worked in the blacksmith shop as a blacksmith. \* \* \* Probably a dozen or so of those reamers (Double) were made while I was in the shop. I worked on all of them. On new work I used to get what we called a 'working draft' and worked to that. By draft I mean drawing. I don't know who had to see the drawings—I used to see Mr. Jones making the drawings. He made the drawings in the office—that is in the office of the shop— Mr. Double's. \* \* \* I don't remember of receiving any instructions from Mr. Double in regard to that underreamer. I did not see any reamers of that type made in the Union Oil Tool Company's shop prior to the time I saw Mr. Jones making the drawings."

See also T. of R., page 951:

"I have talked and discussed the underreamer with Mr. Jones. It was the drawings I saw Mr. Jones making in Double's office which I used as a guide in making the parts of the Double underreamer."

See also T. of R., page 952:

"I don't know that I ever saw Edward Double making any drawings in that shop. I do not know that he could make drawings."

Naugle testified as follows, see T. of R., page 937:

"I know he (Jones) worked on the Double reamer.

It was a new underreamer." \* \* \*

"What I remember about it was this: \* \* \* And I remember the underreamer hanging in the shop and Jones was working on it and went back and forth through the shop to get different things for it."

Also on T. of R., page 938:

"I remember that they were first working on an underreamer, and they took it out to the oil field, and, if my memory is right, it lost the jaws of it off, or something like that, and it was brought back and they changed the pattern or style of the reamer. \* \* \* I do not know that the same reamer was changed after the jaws were broken in it but there was a change from that reamer to one having dovetails in it. I won't say that it was the same reamer. From what I know about forgings, I would not think the same reamer could be changed. It is my recollection that Mr. Jones was still employed by the Union Oil Tool Company when this reamer was brought with the jaws lost. \* \* \*

R. D. Q. 52. (By Mr. Blakeslee): "Have you any recollection as to who worked on the reamer in the changed or modified form or the reamer of modified form, including the dovetails, after the trial of the first reamer that Jones worked on?

A. According to my recollection it was at the time Jones worked on it. While I may be wrong, it is in my mind that he worked on this second reamer and I remember his general talk was—

Mr. Lyon: Wait a moment. We object to the general talk as hearsay.

The Court: Sustained.

R. D. Q. 53. By Mr. Blakeslee: Is that your best recollection?

A. That is my recollection—that Jones worked on the reamer when it came back."

Now Your Honors, we contend that this testimony is convincing and should be given much greater weight than that of Double and his employees. There is much in their testimony in the way of collateral statements, circumstances, etc., which gives it the character of truthful, unbiased testimony, something wholly lacking in the testimony of Double and his four employees.

The testimony of Mrs. Olive E. Jones is very convincing and completely supports Richardson in regard to the drawings being made by Jones, and as to the failure of the first reamer and the change made, all as testified to by Naugle.

See T. of R., page 940:

"When the first reamer went out it failed to be a success on account of not being enough stock, as he (Jones) said, in the cutters, and he was going to change and make dovetails in the cutters and also in the body. That discussion I had with him previous to the time I saw him working on the drawings in the office of the Union Oil Tool Company. He talked at home stating that there would have to be a change made in some way to give more stock to the cutters, as there was where the underreamer was weak. As I stated before that was prior to the time I saw him working on the drawings in the office. \* \* \* The drawing he was working on was like those shown by Complainant's Exhibit Double Reamer Patent."

Note how this testimony fits in with that of Richardson and Naugle. Nothing could be more convincing.

So afraid has counsel been in regard to this contention of Jones as to being at least a co-inventor with Double of the so-called Double reamers that he endeavored to prove that Jones was not working in that shop at all at the time of the conception of them,—that he was working in the Skinner shop, but in Double's employ.

Now, if the testimony of Richardson, Naugle and Mr. Jones and Mrs. Jones be not entirely sufficient to completely disprove that contention and to brand it as either a falsehood or a failure of memory, the following will certainly do so.

Skinner states [see T. of R. page 1001], that his relations with the Union Oil Tool Company ceased the first month after he installed a Flather lathe;—that he and Double ceased to be friends at that time; that nobody from the Union Oil Tool Company's shop worked in his shop after that.

Now please note the testimony of J. B. Shaw and James A. Haskett [T. of R. pages 1007-1008-1009], that that lathe was shipped by the Flather people on February 7, 1901, and that it was shipped March 20, or 23, 1901, from Los Angeles to Santa Paula; that there was no congestion of freight at that time,—no delay from Los Angeles to Santa Paula. Therefore, that lathe reached Skinner at Santa Paula in March, 1901. He no doubt installed it before the month was closed. Hence, having ended his relations with the Union Oil Tool Company in the following month after installing the lathe, would place that event in April.

Even assuming that it was May at the very outside, THAT WOULD BE ONE MONTH BEFORE THE CONCEPTION OF THE FIRST SO-CALLED DOUBLE REAMER AND TWO MONTHS BEFORE THE CONCEPTION OF THE REAMER IN SUIT PATENT #734,833.

Thus we see that Jones, being in the employ of the Union Oil Tool Company until July 15, 1901, as Double admits, he could have been working nowhere else than in the Union Oil Tool Company's shop and not in the Skinner shop, as Double and his four employees testified.

This absolutely conclusive evidence shows beyond the shadow of a doubt, that the testimony of Double and his four employees is wholly unreliable and should be disregarded in every particular.

Now, it is to be noted that the lower court set aside this highly important feature of the defense—disregarded all the evidence and testimony tending to prove Jones to be a co-inventor, if not the sole inventor, of the so-called Double underreamers, solely upon his erroneous conception of the substance of the testimony of Jones as a witness on behalf of E. Mills in August, 1903, in a case involving an interference action concerning the applications for patents by E. Mills and Edward Double covering underreamers.

It is to be noted that at the time of giving that testimony, Jones was of the opinion that whatever he had invented in underreamers while employed by Double, belonged to Double, nor did he know to the contrary until so appraised by E. C. Wilson in 1915. This will account for him referring to the so-called Double reamer as "The reamer that Double made." He sup-

posed it was Double's reamer even though he (Jones) had had much to do with designing it.

The court, referring to that testimony, strangely enough, seemed to see something in it which entirely negatived everything offered in that regard in this case.

The testimony referred to in part is as follows:

See extract from memorandum decision, T. of R., page 47:

"Q. Did you have a conversation with Mr. Double in regard to this reamer (796,197); and if so state the conversation?

A. 'Well, I was employed by Mr. Double at the same time he was manufacturing the reamer in question; I had a conversation with him and he said the reamer was a mean thing to manufacture and that he would change the construction of it, and he showed me what changes he proposed to make, and he also asked me what I thought of the changes, and I told him that I thought the change was a good one. That is all."

The court says of this testimony, T. of R., page 48: "This so far discredits the testimony of Jones as to leave no warrant for overthrowing the presumption of regularity in the issuance of the patent, as well as plaintiff's evidence now given in support of the patent."

We have given this quoted Jones testimony very careful study and are unable to find any statement or expression therein which can be regarded as seriously inconsistent with the testimony given by Mr. Jones in the present suit. Certainly there is nothing therein so

damning and so completely fatal when compared with his testimony in this case as to render completely negatory all of his testimony in this case as well as that of disinterested witnesses who corroborate his testimony so completely.

Either the court has confused this conversation with an incident which took place between Mr. Jones and Mr. Double at the time they were first inspecting the Brown model of an underreamer, which underreamer model had been brought to Santa Paula by Mr. Gilson, and which conversation is included in Jones' testimony in this case, or he has construed this paragraph to indicate that the reamer in question (namely, the reamer covered by the patent #796,197, the first so-called Double underreamer made), was entirely the invention of Mr. Double, and further, that Mr. Double had conceived of all the changes in that reamer which were made when the Double underreamer in suit was designed, and that Mr. Jones' only part in design and changing in design was merely to express his opinion in the words, "And I told him that I thought the change was a good one."

Now, in regard to the first possible conclusion of Judge Cushman as to the significance of this conversation between Mr. Jones and Mr. Double when first inspecting the Brown model; see T. of R., page 884, answer to question 66:

"Well, it is pretty hard for me to remember all the details of the conversation, but the principal feature of it was whether we could manufacture that reamer the way it was or whether we could not, and I tried to explain to Mr. Double that it couldn't be made that way

and, if it was made, it would not be a success when in the well. That was the first thing we had to decide. We didn't want to make anything and send it out as a failure if we could help it.

Mr. Double asked me the question whether it would work or not, and that is what I told him."

Possibly the lower court has confused this incident, as above stated, with the one referred to in Mr. Jones' testimony quoted from the Mills-Double interference suit. Such a misconception would, of course, give Jones' testimony in the two cases the appearance of being entirely contradictory. Such apparent contradiction, however, is entirely dispelled when it is remembered that they refer to two entirely different incidents, and to two entirely different underreamers. True Mr. Jones, when testifying in the present suit, states that he does not recollect any discussion between himself and Mr. Double wherein Mr. Double suggested certain features of construction or made any proposed changes in construction relative to the Double patent #796,197, but it must be remembered that Mr. Jones has repeatedly stated that in the underreamer matters he and Mr. Double, as he expressed it, "worked in unison in such things more or less." In brief, Mr. Jones has never made the contention that he was the sole inventor of the so-called Double underreamer, but that he did design certain of the important elements therein. When asked the question as to whether Mr. Double made any suggestions to him with respect to the drawing he (Jones) had made preparatory to manufacturing the first so-called Double underreamer, he stated,

page 890, answer to question 146: "To the best of my knowledge and belief, he did." Again in answer to question 162 he states: "We both worked in conjunction together more or less on the question, and we decided that it was shown that the one had the best inventive powers, his ideas were generally accepted and it proved the same with this."

Therefore it is quite the logical conclusion that after the first Double underreamer, namely that covered by patent #796,197, had been tried out and proved a failure, as they stated, Mr. Double as well as Mr. Jones, had ideas as to possible improvements in that reamer and that such a conversation quoted above, and which the lower court has contended discredited the testimony of Jones, would be a natural consequence of their united efforts to produce a satisfactory underreamer.

Co-operation in such matters necessarily involves such conversations. Undoubtedly it was only one of numerous such conversations they had in regard to the results they were endeavoring to obtain.

It is to be noted that Mr. Jones' deposition in that Mills-Double interference was quite brief, the direct examination consisting of only fifteen questions and answers and covering less than two pages of testimony. He was not asked to give any particulars as to who was the inventor of the so-called Double underreamer or as to what part he played in such invention or as to the construction of such reamer. As a matter of fact his testimony in that case had to do only with the reamer similar to patent #796,197. And obviously his memory in certain regards was not as clear at that

time as it was when testifying in the present case after having given the matter very careful and thorough reflection. This is illustrated very clearly by his statements in the Mills testimony, in which he states:

Question 12. "What occasioned him to make the remarks about changing the reamer?

Answer: As he was having a great deal of trouble in manufacturing this reamer in question, that's all."

Now he, as well as Mr. Double and numerous other witnesses, have testified in this case that the reason for changing the construction of the Double reamer after having first tried out the type covered by patent #796,197, was *due to the weakness of the construction* of the reamer and the difficulties occasioned thereby, and not that they were having a great deal of trouble in manufacturing that reamer.

Furthermore, it is to be particularly noted that while, as he states, Double showed him what changes he proposed to make, using the plural form of the word change, he concludes his paragraph with the statement, "and also asked me what I thought of the *change*, and I told him that I thought the *change* was a *good one*."

Hence we see that after all this conversation refers to only one change suggested by Mr. Double, and, if Mr. Double did co-operate with Mr. Jones, as Mr. Jones has repeatedly stated, Mr. Double must have, at least, made the suggestion of one change. Therefore, we most respectfully submit that this extract from Jones' testimony in the Mills-Double interference suit, instead of discrediting the testimony of Jones in this

case, as Judge Cushman has found, actually substantiated it.

We confess that we are entirely at a loss to account for the lower court's conclusion on this point unless it be on the theory that he was under a misapprehension as to the incident referred to in the quoted testimony. We are confident that Your Honors will be convinced that Jones was a co-inventor and that the Double pattent in suit should have been declared invalid.

The complainants-appellees in their brief before this court practically rests their case on an attempt to show that no successful oil well underreamer existed prior to the advent of the Double patent in suit, #734,833; that it promptly made deep well drilling possible and has been used universally and without modification or change since its introduction.

The object of this contention is to establish the Double patent in suit as a pioneer patent in order that it can claim such a broad application of the Doctrine of Equivalence as to cover all subsequent reamers. It is plain that the appellants realize that only a revolutionary and unheard-of application of the Doctrine of Equivalence will meet their case, as counsel has been unable to show that the Wilson underreamer contains either the combination of elements or the mode of operation to be found in the Double device.

That these are fallacies we will herein later prove. In endeavoring to make out a case to support appellee's charge of infringement of the Double patent #734,833, counsel has formulated his efforts practically, if not almost identically, as set forth in the diagram which follows. A careful study of counsel's argument

and brief and the testimony which he has produced in this case will indicate to Your Honors that this diagram, generally speaking, is full and complete. The diagram is as follows:

DIAGRAM OF APPELLANT'S CASE.

First: Double, the original and sole inventor of the reamer covered by patent #734,833, namely, the reamer in suit.

Second: The Double patent is a broad, combination patent, the claims of which are not to be limited in scope for the following reasons:

- (a) Double's reamer the first completely successful underreamer. Prior underreamers were failures.
- (b) Double first to use "tilting cutters," operating in open dovetailed slip-ways, tilting over a spreading-bearing.
- (c) The "complete" adoption of the Double reamer and its great success entitles it to be considered a pioneer invention, entitling appellees to a liberal range of the Doctrine of Equivalents.

Third: The Double patent, aided by the "liberal" allowance of the Doctrine of Equivalents is sufficient to include within its scope the pronged type of Wilson underreamer.

(a) That the separated spaced prongs of the Wilson underreamer are equivalent to the hollow slotted extension of the Double underreamer.

- (b) That the straight, parallel cutter-retaining shoulders, 2', on the inner faces of the prongs of the Wilson underreamer are the equivalents of the upper and inwardly inclined dovetailed slip-ways of the Double reamer.
- (c) That the tapering or inclined bearing-faces, 9, of the lugs of the Wilson underreamer, which hold the cutters apart when in reaming position, are the *equivalents* of the "opposite parallel bearing-faces of the hollow slotted extension, 6, of the Double reamer."
- (d) That the one-piece body of the Wilson underreamer (capable of assembling the cutters, key and spring at the bottom, and capable of remachining) is the *equivalent* of the twopiece body of the Double underreamer (with its middle joint, and which cannot be assembled at the bottom and which cannot be remachined).
- (e) That the open space between the prongs of the Wilson underreamer body is the equivalent of the wall or partition of the Double underreamer with its opposite parallel bearing-faces and with its slot, 7, for the key, serving as a guide for the key and a stop for the downward travel of the key and cutters, and its hollow for the rod.
- (f) That the two lugs or lower projections at the end of the prongs of the Wilson underreamer, whereby the cutters are expanded and held in expanded position while reaming, are the *equivalent* of the stationary well or partition, namely, the hollow slotted extension enterposed between the cutters of the Double underreamer.

- (g) That the detachable block of the original Wilson underreamer or the removable key in the Wilson Improved, which serves as a seat for the spring of the Wilson underreamer and by which means the cutters, spring and tee are held in place in the reamer body, are the *equivalents* of the stationary or fixed shoulder, 5, of the Double underreamer body.
- (h) That the Wilson shanked cutters, having laterally projecting shoulders with bearing-faces thereon, are the *equivalents* of the Double cutters (having no shanks whatever and having V-shaped grooves across their backs forming inward projections, 18, of the Double underreamer cutters, and having no lateral shoulders whatever).
- (i) That the solid forged Wilson tee with a cross-bar head for suspending the cutters is the *equivalent* of the rod or spring-actuated mandrel of the Double underreamer, having the slot in the rod, and a detachable notched key fitting in the rod.
- the solid forged tee that when collapsing they swing together at the lower end, pendulum-like, collapsing between the prongs of the Wilson underreamer, and when so collapsed the spreading means are entirely removed from between the cutters, are the equivalents of the "Tilting Double Cutters," which cutters, as Double states, tilt outwardly at the upper end by sliding upon the key to permit collapsing over the lower end of the hollow slotted extension, which hollow

slotted extension is at all times interposed between the cutters whether collapsed or whether expanded.

- (k) That the initial collapsion of the Wilson underreamer cutters, when first drawn downwardly upon the inclined bearing-faces, 9, of the lugs of the Wilson underreamer, is the equivalent of the "tilting" action of the Double cutters, which (they admit) takes place only under "abnormal" conditions, which tilting is occasioned by the outward swing of the cutters at the upper end, sliding upon the key, following the inclination of the dovetails of the Double underreamer body.
- (1) That the detachable cross-piece or safety bolt, 11, of the Wilson underreamer is the *equivalent* of the slot, 7, of the Double underreamer, thus forming a stop for the downward travel of the key, key-rod and cutters.
- (m) That the retaining shoulders, 2", of the Wilson on the inner faces of the prongs, even though they cannot possibly form inner bearings (there being no metal at that place by which any inner bearings can be formed), are the equivalent of the dovetailed grooves of the Double underreamer, which dovetailed grooves are provided with inner bearings, thus forming what Judge Cushman of the lower court termed "inner, outer and lateral bearings," by the interrelation of the dovetailed ways upon the body of the reamer and dovetails upon the cutters of the Double underreamer.
- (n) That all the other differences in construction between the Wilson underreamer and

the Double underreamer, and all the differences in modes of operation and principles of action can be reconciled by the application of the Doctrine of Equivalents.

Fourth: That the Wilson underreamer, owing to this broad scope of the Double underreamer patent, aided by the "liberal" application of the Doctrine of Equivalents, must be found to infringe the Double underreamer patent.

How clear it must be to Your Honors that counsel for appellee has found it absolutely necessary to attempt to build up a case by piecing and patching together a peculiarly varied assortment of unsound contentions, misstatements of facts and law, biased testimony of so-called expert witnesses, new and unheard of expressions of the rule of the Doctrine of Equivalents, together with numerous attempts to so confuse the court's sense of perception as to induce Your Honors to accept counsel's statements as to construction and interrelation of parts and principles and modes of action instead of believing what your own eyes see before you as disclosed by the exhibits in the case. Clearly appellees' case is a fabrication of fallacious statements of law and fact, and must crumble to the ground.

We would at this point direct the particular attention of Your Honors to the fact that, as our diagram indicates, counsel must rely entirely upon an absurdly distorted application of the rule of Doctrine of Equivalents in order to make it appear to Your Honors that even one single piece of the Wilson underreamer (much less

the combinations) can come under the claims, or any one of the claims, of the Double underreamer patent. Not one element in the construction of the Wilson underreamer can counsel point to and say that it is like that of the Double. In each and every comparison counsel makes of the elements or combinations of elements of the Wilson with the so-called Double reamer, he claims one to be the EQUIVALENT of the other. He dare not claim them to be alike! In every instance he must resort to his grossly distorted application of the Doctrine of Equivalents in order to bring it even within questionable range of similarity in construction or function.

It would certainly be hard to conceive of a case, and probably no case has ever been presented to Your Horors, wherein the plaintiff was unable to point to a single element of the alleged infringing device, and, without resorting to an unreasonable and totally distorted rule of the Doctrine of Equivalents, say with certainty that this or that element was exactly like the corresponding element in the patented device.

## Analysis of Appellees' Case, Outlined by the Diagram Above.

We have deemed it well to diagram appellees' case, believing that it will be of great assistance to Your Honors in your efforts to determine just what appellees' case is based upon, and in order that we may more certainly analyze each and every one of counsel's points and indicate clearly to your minds that without a single exception every one of appellees' points is entirely insupportable, either by law or by fact.

We believe that Your Honors will find it necessary to deal with this narrow Double patent in the same manner that the Supreme Court did under similar circumstances in dealing with a narrow patent, in the face of a claim of pioneership, in the leading case of Westinghouse v. Boyden, 170 U. S.

We will take up each point separately and in the order disclosed by the diagram above.

#### As to the First Division of Our Diagram:

That Double was not the sole inventor of the reamer covered by patent #734,833, we believe, has been very clearly set forth previously in this brief and also in our opening brief. Clearly Jones was a co-inventor, and, as such, was entitled to an interest in the patent, and should have joined in the application for that patent. See U. S. R. S., Secs. 4892 and 4895. Accordingly, the Double underreamer patent in suit should have been declared void, as it was fraudulently obtained by Edward Double. We submit that the evidence and testimony in that regard and as set out above in this brief, is entirely conclusive, and that had Judge Cushman of the lower court clearly understood the Jones testimony quoted from the Mills Interference case he could have done nothing else than find that the Double patent was invalid, and accordingly would have dismissed the suit.

Counsel has cited authorities to the effect that where the trial court has seen and heard the witnesses the Appellate Court ordinarily should not disturb the findings of the lower court as to questions of fact. Such doctrine is not inflexible, and we call Your Honors' attention again to Your Honors' decision in the case of Wilson et al. v. Bole et al., 227 Fed. 607, involving even certain of the witnesses in this present case, and in which case Your Honors sweepingly reversed the decree of the lower court, although all the testimony in that case was taken in open court.

As TO THE SECOND DIVISION, NAMELY, THAT THE DOUBLE PATENT SHOULD NOT BE LIMITED IN SCOPE.

As we have previously pointed out, counsel for appellee admitted in open court that the Double underreamer patent was strictly a combination patent, a patent covering a new arrangement or combination of admittedly old elements. Your Honors are well aware that such a patent covers simply the combination of elements particularly stated, and set forth in the claims. Such a combination must be regarded as an Entity and that to eliminate any one of the elements of which that combination is composed, or even by retaining those elements, rearranging them and changing the function or the mode of operation of the combination, infringement is avoided. Thus, to infringe the Double patent, as we have stated before, it must be found that the Wilson underreamer is identical with the reamer disclosed and claimed by the Double patent, in construction of elements and interrelation of such elements, and in function; and that each of the Wilson elements performs its function in substantially the same way as that of the Double and obtains substantially the same results.

Now that is as broad and as sweeping construction as counsel for appellees can hope to secure for his patent, through the aid of the Doctrine of Equivalents. To secure such a broad allowance of the Doctrine of Equivalents, we find counsel asserting, as pointed out in our diagram, subdivision a of 2nd division, that he is entitled to such by reason of the complete success of the Double underreamer, and for the reason that it was the "first completely successful reamer." The absolute absurdity of this contention must be very apparent to Your Honors. Swan underreamers, Plotts underreamers, Austrian underreamers, and numerous others had been in use for years both before the advent of the Double, and for years after the Double underreamer in suit was abandoned.

See testimony of B. L. Culver, T. of R. page 236:

"The first time we used the Austrian underreamer it was successful, and we thought it was a great thing. It was a great thing. The first one I used was with a 5% casing. I was able to lower the casing with it. Probably reamed three hundred feet."

See testimony of Bennett, T. of R. 831:

"Q. 72. Well, if you were to select this reamer you call the Australian (the Canadian) reamer or the Double reamer you have referred to, which would you prefer?

A. I don't think there would be much choice as far as I am personally concerned."

Also T. of R. page 834:

"A. The Double underreamer was not satisfactory. In trying to enter a hard formation that we have encountered in the well of the Sunset Security Oil Company, we were not able to accomplish the work, owing to the lugs or cutters constantly breaking." \* \* \* \* "Most of them were lost in the hole."

See testimony of Sam G. Lamb, T. of R. page 858: "\* \* \* I had one case where I could not get results with the Double reamer. That was in Coalinga. It was in 4½" casing. It would not ream the hole large enough to permit the casing to go through. We did not abandon the hole but we got a Wilson REAMER WHICH REAMED THE HOLE AND WE FINISHED THE WELL WITH IT. We did not have a bit of trouble with the Wilson reamer. It did the work satisfactorily."

As we have pointed out to Your Honors in open court, counsel himself while examining Mr. Jones in the same Mills-Double interference case, which was in August of 1903 (over two years after the Double underreamer first went on the market), brought out the fact that the Austrian underreamer was still at that late date one of the standard underreamers and one of those enjoying the greatest sale.

We quote as follows testimony on behalf of Mills, R. p. 16:

"E. B. Farnsworth, called for further cross-examination.

Question by Mr. Lyons:

- X. Q. 21. The Austrian undder-reamer which you referred to is a standard under-reamer, is it not? A. Yes, sir.
- X. Q. 22. And is one of the under-reamers having the largest sale and most generally used? A. Yes, sir."

With the evidence just recited before Your Honors, how apparent are counsel's misrepresentations! How absolutely unreliable is his contention that the Double underreamer was the "first successful" underreamer and the one which superseded all others! The evidence in this case is replete with testimony from numerous witnesses, both those of appellant and appellee, who had successfully used Swan underreamers, Austrian underreamers, Plotts underreamers, Kellerman underreamers, O'Donnell & Willard underreamers, Day underreamers, and numerous others. True, those witnesses in many instances stated that some of the reamers were not satisfactory, but nevertheless they testified that they did underream the holes and that they lowered the casing with those underreamers. Witness after witness testifies that the Double reamer was not satisfactory. These facts and this testimony just referred to, which constitute an authenic fact of the history of the art of underreaming, as supported by this record, rings far truer than the bald statements to the contrary of counsel and the flimsy testimony of such biased and untruthful witnesses as Griffin and Youle, and like testimony of others.

And in support of our position that those reamers were successfully used both before and after the Double underreamer went on the market permit us to call to Your Honors' minds the fact that probably not one automobile driver of today would consider the automobile of ten or twelve years ago, namely, automobiles of 1905 or 1906, anything but rank failures, highly unsatisfactory, and that they would under no circumstances use such machines. Now that is about analo-

gous to the testimony of the most outspoken of appellee's witnesses condemning the Austrian, Swan, Plotts, North and other reamers which were used prior to the advent of the Double reamer and the Wilson reamer. Remember, Your Honors, they were testifying twelve years subsequent to the use of the underreamers in question. During those twelve years the Wilson underreamer and to some extent the Double underreamers, so-called, which incorporated principal elements of the Wilson reamer, had so thoroughly educated the different drillers and oil operators as to what an underreamer really should be and what work they should expect of an underreamer, that several of them testified that none of those old underreamers were "practical" underreamers. The word "practical" is merely a relative term.

Now as a matter of fact, the automobile of 1905 and 1906 were very extensively used; they traveled across the continent repeatedly; they were used in automobile races; hundreds and thousands of them were sold and used. We make just the same statement in regard to the underreamers sold prior to the advent of the Double, namely, that hundreds of them were sold and used and hundreds of wells were drilled and the casing lowered after using those reamers. Hence they were the *pioneer* reamers. The Double reamer cannot rob them of that place in the art.

Now it matters not that the Double underreamer was an improvement (and there is some serious question on that point) over the other reamers preceding the Double; the fact that the Double was promptly abandoned on the advent of the Wilson underreamer

and that even later types of the Double underreamer so-called were highly unsatisfactory (witness the broken cutters, broken bodies and other evidence before this court), it must be entirely clear to Your Honors that the Double underreamer never was and never could be the "first completely successful underreamer." The testimony of Wren, Williams, Kibele, Lamb, Bennett, Plotts and many others completely refutes counsel's contention in that regard.

If the Double reamer, covered by patent in suit, was the first "completely" successful underreamer, as counsel states, why was that reamer abandoned? Why has appellee corporation found it necessary to assume the risk of infringement of others' patents by manufacturing reamers of other construction if the Double underreamer in suit was the "first completely successful underreamer"?

The facts completely outweigh counsel's false contention.

Our contention that the Wilson underreamer made the underreaming art a complete success and that the Double underreamer was a mere transitory step in the art and abandoned in favor of the Wilson underreamer, is borne out by the fact that the record shows that the Wilson underreamer and Wilsonized Double underreamer were the reamers which have practically superseded all other underreamers, and by the further fact that no one has ever improved upon the Wilson underreamer or put any such improvements into practice, so that since the year 1904 the Wilson invention has stood in the trade and in the field as the *sine qua non* in reaming practice, that is, the invention without use

of which truly successful underreaming cannot be performed. The Double reamer stands superseded. No reamer has ever superseded the Wilson reamer.

The courts have very jealously guarded the public against the assertion of pioneership by patentees, and where all the parts of a combination were old, and devices had been previously produced for performing the functions or substantially the functions of the subject of the patent in question, and had actually been used, it has been the tendency of the courts to call such patents merely "improvement" patents. In the noted Selden patent case, involving the automobile, decided in 1911 by the Circuit Court of Appeals, Second Circuit, as reported in 184 Fed., at page 893, the court after saying—

"Every element in the claim was old, and the combination itself was not new,"

went on to point out that the patentee Selden had adopted the constant pressure type of internal combustion engine, while the defendant had adopted the varying pressure type, both types being well-known in the art. The patent was found to be strictly limited to this constant pressure type and so not infringed. The patent was found to be entitled to a fair and reasonable, but not broad range of equivalents, and it was held that the constant pressure type was not the equivalent of a varying pressure type of engine and that therefore infringement did not lie. The patentee deliberately introduced in his patent such constant pressure type motor, as Double in his patent in suit here introduced and limited himself to the hollow slotted extension type of reamer, a type well-known in the art,

for instance, by the Swan and O'Donnell and Willard prior reamers. Having so limited himself, the radically different spaced or pronged type of reamer of Wilson, in which the prongs co-operate entirely with the cutters for expansion and collapsion were radically new, cannot be found to infringe the mere improvement and not pioneer patent of Double. Turning to Walker on Patents, we find the following matter in section 184 of interest:

"The prior state of the art, to which an invention belongs, must be considered in construing any claim for that invention, although the art may have been advanced to that stage, by a prior invention of the same inventor. The leading cases on this subject are McCormick v. Talcott, and Railway Co. v. Sayles, and Morley Machine Co. v. Lancaster, and Kokomo Fence Machine Co. v. Kitselman."

"The doctrine of the McCormick case is as follows: The original inventor of a machine, will have a right to treat as infringers all who make machines operating on the same principle, and performing the same functions, by analogous means, or equivalent combinations; even though the infringing machine be an improvement on the original, and patentable as such. But if the invention claimed, be itself but an improvement on a known machine, by a mere change of form or combination of parts, the patentee cannot treat another as an infringer, who has improved the original machine, by use of a different form or combination, performing the same functions. The inventor of the first improvement cannot invoke the doctrine of equivalents to suppress any other

improvement which is not a mere colorable invasion of the first."

"The meaning of these four cases seems to be that every inventor is entitled to claim whatever he was the first to invent. If A, B, is the first to invent mechanism to perform a particular work, and if his mechanism is substantially incorporated into subsequent machines which do that work, then A. B. is entitled to such a construction of his patent as will be infringed by those later machines; but if C. D. is a mere improver on A. B.'s machine, C. D. is not entitled to such a construction of his patent, as will cover the machines of still later inventors, who have improved on A. B.'s machine in a substantially different manner. It follows from these doctrines that C. D.'s patent must be construed in the light of A. B.'s machine, and indeed of every other similar and older structure; which is the same thing as saying that every patent must be construed in the light of the state of the art, at the time the invention it covers was produced."

"The state of a particular art, at the time of a particular invention, includes whatever inventions, belonging to that art, had been already invented and used in the United States, or patented, or described in any printed publication, in any country. And an invention is patented in the eye of this law, where it is fully shown in the drawings of a patent, though not described in the specification. Patents take rank in an art in the order of their numbers; except where that order is different from the order of the dates upon which they were applied for, in which case they take rank in the order of those dates."

The Double patent must be strictly construed, and as pointed out in section 186 of Walker on Patents, the patentee cannot show that his invention is broader than the terms of his claims; or, if broader, the patentee must be held to have turned over the over-plus to the public, as held in Keystone Bridge Co. v. Iron Co., 95 U. S. 278. The public, it is stated, should not be deprived of rights supposed to belong to it without being clearly informed as to what limits those rights. In other words, the language of the claims is a notice to the public of what it shall not do. It was not incumbent upon Wilson to go further than the plain notice of the limited Double claims, and such plain language is such as to these Double limited claims, that he who runs may read, to the end that he who reads may run, but only from the clear inhibition of the terms of the claims. As stated in White v. Dunbar, 119 U.S. 51:

"Some persons seem to suppose that a claim in a patent is like a nose of wax which may be turned and twisted in any direction, by merely referring to the specification, so as to make it include something more than, or something different from what its words express. The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precisely what his invention it; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms."

It was also well said in Adams & Westlake Co. v. Peter Gray & Sons Inc., 206 Fed. 303, on page 307:

"When the improved result is due to a more exact or refined application of old principles, care

must be taken to limit the claims to those new features which give the better result; otherwise one who has made what is perhaps the best application of old principles may lay too broad a claim to the use of that which other improvers are also at liberty to apply."

Likewise see the recent decision in Evans et al. v. Hall Printing Press Co., 223 Fed. 539 (C. C. A.), in which, on pages 541 and 542, the following appears:

"The inventor can, of course, use any language he wishes in describing his invention and in stating his claims. Having done so, however, he must abide by the phraseology chosen. It is then too late to reconstruct his claims by adding or subtracting from the language used. This rule may result in hardship in many cases, but a contrary rule would work a far greater injustice and would enable the patentee to hold as infringers those who have invested their capital in what they supposed, relying on the plain language of the patent, to be a perfectly legitimate business. When the language of the claims of a patent is clear and distinct, the patentee is bound by it. Keystone Bridge Co. v. Phoenix Iron Co., 95 U. S. 274, 24 L. Ed. 344; Merrill v. Yeomans, 94 U. S. 568, 24 L. Ed. 235.

"We know of no authority where a defendant has been held as an infringer of a combination claim where he omits three of the elements of the combination. If the defendant omits one or more of the elements which make up the combination he no longer uses the combination. It is no answer that the combination operates as well without as with them. The patentee was at liberty to describe his combination as he saw fit, having done so, the rights of the public are involved and the court cannot construe the claim precisely as if all reference to the said printing surfaces were omitted."

It would be a rank injustice for any court to hold that where a patentee has limited himself to such an element, for instance as a hollow slotted extension of an underreamer body having parallel opposite bearingfaces, were all the dictionary at his command to more particularly define his invention if the prior art permitted, one who operated entirely outside of such language and any possible rational interpretation of the same, should be held as an infringer. We invite the court's attention particularly to the many and various limitations voluntarily introduced by Double in his file wrapper and contents of the Double patent in suit, which file wrapper and contents appears in the book of exhibits commencing at page 227. This should be closely studied so that the court may determine how voluntarily, explicitly and unmistakably and irretrievably the patentee Double, after various citations of prior devices, such as the Swan reamer, limited his specification and claims in order to obtain the narrow patent finally granted to him.

We have it upon the authority of counsel for appellees that such limitations of the file wrapper and contents of a patent in suit are very serious things, and to show how counsel of appellees appreciate this fact, although he was making wrong of it, as we contend, in that case, we quote from appellant's reply brief in cause 2918, on pages 49 to 52, as follows:

"As said by the Circuit Court of Appeal in Dowagiac Mfg. Co. v. Superior Co., 115 Fed. 886:

'Whatever doubt there might have been as to whether the claim was limited to the construction of its language by the specification it was removed by the limitation which he put upon it by his explanation, the consequence of which was the allowance of his patent, and the claim must be read as limited in this respect in the same way as are the other claims.'"

"And as said by the court in Peifer v. Brown, 112 Fed. 435:

'A claim must be construed as limited by amendment and acquiesence in the patent office.'"

"And, as said by the court in Kelly v. Clow, 89 Fed. 207, a Circuit Court of Appeal case:

'He cannot claim such a construction of his patent as would include what he was expressly required to abandon as a condition of the grant, even if it takes away a material part of his real invention.'"

"And as said by the court in Sutter v. Robinson, 119 U. S. 530:

'Complainant is not now at liberty to insist upon a construction of his patent which will include what he was expressly required to abandon and disavow as a condition of the grant.'"

"And, as said by the Supreme Court in Roemer v. Peddie, 132 U. S. 313:

'This court has often held that when a patentee, on the rejection of his application, inserts in his specification, in consequence, limitations and restrictions for the purpose of obtaining his patent, he cannot, after he has obtained it, claim that it shall be construed as it would have been construed if such limitations and restrictions were not contained in it.'

"And, as said by the Supreme Court of the United States in Leheigh Co. v. Kearney, 158 U. S. 461:

'Acquiesence in the rejection of a claim and restriction by amendment limits the construction of the claim to the devices shown.'

"As said by the Circuit Court of Appeal for the Second District, in Green v. Buckley, 135 Fed. 520:

'Where the patentee specifies a particular form as a means by which the effect of the invention is produced, or otherwise confines himself to the particular form of what he describes, he is limited thereby in his claim for infringement.'

"And as said by the Supreme Court in Wright v. Yengling, 155 U. S. 47:

'The patentee having described in his specification and declared it to be an essential part of his invention an element thereof, and having made it a subject of his claims, is not now at liberty to say it is immaterial or that a device which dispenses with it is an infringement though it accomplish the same purpose in perhaps an equally effective manner.'"

"It is a well-known rule of construction that in a given contract or instrument the same general words of description must be given the same meaning.

"As said by the Circuit Court of Appeal for the Eighth Circuit in Moon-Hopkins Billing Machine Co. v. Dalton Co., 236 Fed. 936:

"When an applicant for a patent inserts limitations and restrictions to comply with rulings of the patent office he cannot afterwards have a construction of his patent as though the limitations and restrictions were not contained in it." "As said by the Supreme Court in Computing Scale Co. v. Automatic Scale Co., 204 U. S. 609:

'Before taking up the record as disclosed in the file wrapper an contents, we may premise that it is perfectly well settled in this court by frequent decisions that where an inventor, seeking a broad claim, which is rejected, in which rejection he acquiesces, substitutes therefor a narrower claim, he cannot be heard to insist that the construction of the claim allowed shall cover that which has been previously rejected. Corbi Cabinet Lock Co. v. Eagle Lock Co., 150 U. S. 38-40, 37 L. Ed. 989, 990, 14 Sup. Ct. Rep. 28, and cases there cited.'"

"A late statement of the rule, and one as favorable to the inventor as the previous cases would admit, is found in Hubbel v. United States, 179 U. S. 77, 88, 45 L. Ed. 95, 98, 21 Sup. Ct. Rep. 24, 25, as follows:

'An examination of the history of appellant's claim, as disclosed in the file wrapper and contents, shows that, in order to get his patent, he was compelled to accept one with a narrower claim than that contained in his original application; and it is well settled that the claim as allowed must be read and interpreted with reference to the rejected claim, and to the prior state of the art, and cannot be so construed as to cover either what was rejected by the patent office or disclosed by prior devices. Leggett v. Avery, 101 U. S. 256, 25 L. Ed. 865; Shepard v. Carrigan, 116 U. S. 593, 29 L. Ed. 723, 6 Sup. Ct. Rep. 493; Knapp v. Morss, 150 U. S. 221, 227, 37 L. Ed., 1059, 1061, 14 Sup Ct. Rep. 81.'"

"This is not a case where the amendment made to the claim was in regard to a minor or merely incidental element of a combination, but where the amendment was made to describe and set forth and distinctly claim (as required by Sec. 4888 R. S. U. S.) the particular construction and form of the particular element which gave the claimed novelty to the combination, so that this limitation is of the essence of the claim."

As further said in Oriental Tissue Co. v. Louis de Jonge & Co., 235 Fed. at page 296, quoting from Victor Talking Machine Co. v. Ameranc Graphaphone, 151 Fed. 601, as follows:

"The applicant for a patent is entitled to specify any claim in his application the subject-matter of which he believes himself to be the original inventor, and to persist in his assertions and claims until final action thereon by the patent office. But when his claims are rejected on references cited against them, he is called upon to exercise his election between insistence and appeal or desistence and acquiesence. And while the language of the patent as issued may not be contradicted by mere voluntary expressions of opinion, or argumentative suggestions made by the applicant in his communications to the patent office, especially where no change is made in the claims, and while a patentee is entitled to the benefit of such equities as may be properly raised in his behalf from the transactions disclosed in the file wrapper, yet, on the other hand, the public is interested in securing due limitations upon the claim of an exclusive monopoly on the ground of patentable novelty, and is entitled to the benefit of admissions imposed upon the applicant as a condition precedent to the allowance of the patent. 'Undoubtedly a patent, like any other written instrument, is to be interpreted by its

own terms. But when a patent bears upon its face a particular construction, inasmuch as the specification and claim are in the words of the patentee, it is reasonable to hold that such a construction may be confirmed by what the patentee said when he was making his application. The understanding of a party to a contract has always been regarded as of some importance in its interpretation.' Goodyear Dental Vulcanite Co. v. Davis, 102 U. S. 222, 227, 26 L. Ed. 149. While, an applicant for a patent may state that some portion of said territory is the property of another or is held in common by the public, he acquiesces in such statement and alters his boundaries accordingly, he is concluded by such abandonment, and cannot afterward undertake to define his territory by rolling stones, which he may move about across the lines of his original boundaries so as to appropriate property previously conceded to belong to others."

Surely when Double cancelled claim 8, which he would have it in effect still remains in his patent, and substituted narrow claim 7, and amended his claims to provide for opposite parallel bearing-faces upon his hollow slotted extension, he forever put away from his claim of monopoly those things clearly excluded by such surrender of scope and particularly of definition of his alleged invention. No one can be doing wrong for using what Double thus disclaimed.

Your Honors have just decided an appeal adversely to appellant represented by same counsel as represents appellees in the case at bar, opinion by Your Honor Judge Hunt, Ward v. Rogers Bros. Co., reported in the advance sheets of June 14, 1917, 241 Fed. 257, in

which Your Honors refused to adopt the strained interpretation of the patent in suit urged by counsel, in order to piece it and fit it over the alleged infringement. There counsel apparently attempted to build up a hypothetical claim for the patent, under his timeworn fallacious attempt to make out infringement where results are somewhat common both as to the patent and the alleged infringing device. As Your Honors said in Riverside Heigths etc. v. Stebler, reported in advance sheets of Federal Reporter May 24, 1917, 240, 703, if the device of defendant shows a specifically different mode of operation, even though the *result* of the operation of the machine remains the same, infringement is avoided.

Clearly counsel is making out a poor case again in his attempt to show that because Wilson has cutters which expand and collapse, as all underreamer cutters from time immemorial have done, the Wilson reamer must infringe the Double reamer because it likewise has cutters in which the *result* of the expansion and collapsion of cutters occurs.

## Answering Division b of Second Division of Diagram.

That Double was not the first to use "tilting" cutters operating in open dovetailed slip-ways, and collapsing over spreading-bearings, has been clearly pointed out to Your Honors before. The Jones Round Nose reamer had dovetailed cutters operating in open dovetailed slip-ways, said cutters extending the periphery of the body to contact with the casing shoe high above the spreading-bearings, and high above the fulcrum

point, just the same principle of action counsel is claiming was a novel feature of the Double reamer. The Jones cutters collapsed over a spreading-bearing which was hollow; its cutters had inward depressions or grooves across the back which corresponded exactly with the V-shaped grooves across the back of the Double cutters. That reamer even had a middle joint with the shoulder forming a seat for the spring, just as the shoulder, 5, of the Double. That Double saw a wooden model of small size of that reamer prior to the time the Double reamer #734,833 was made up or even conceived of has been clearly established by testimony in evidence in this case. Also see Double testimony, T. of R. pp. 981-982, X. A.'s 278-281, as to Double first seeing Jones Round Nose reamer.

As we have pointed out in this brief and in appellant's reply to appellees' brief in case No. 2918, the Jones Round Nose reamer was suppressed by notice from the present counsel for Double that such reamer infringed patents issued or to be issued to Double. We have proven that this Jones Round Nosed reamer was seen and shown by Double before his alleged invention of the reamer of the patent in suit; and therefore under well established principles of patent law, if, as counsel charged, this Jones Round Nosed reamer infringed or could infringe the patent in suit, it must, being prior to the alleged invention of said patent, anticipate the same. As we have pointed out, the only material difference between this Jones Round Nosed reamer and the reamer of the patent in suit consist in its fixed tee head for carrying the cutters in substitution for the removable kev guided in slotted interposed spreadingbearing. The hollow interposed spreading-bearing is present.

Furthermore, the lower court found that this tilting action of the cutters, as disclosed in the Brown patent, was identical with that of the Double with the exception of the fact that, as the court erroneously stated, the cutters were not actuated by the downward motion of the suspension means. That finding we have proven in our opening brief was erroneous; that the Brown cutters must travel downwardly as the suspension means travels downwardly, and are positively actuated by such suspension means. Therefore, the Brown reamer discloses identically the same method of "tilting" the cutters as that of the Double. Of course, Double was taught that "tilting" action by the Brown patent.

Your Honors will be convinced that the Double patent has not a single claim so worded as to cover an underreamer having tilting cutters slidably mounted in open dovetiled slip-ways and collapsing over a spreading-bearing unless the reamer has all of the other numerous elements and combinations mentioned in the claims, and with the same principle of action and modes of operation as those clearly specified and set forth in the claims of the Double underreamer patent. In other words, the dovetailed tilt-slips operating in open dovetailed slip-ways and collapsing over a spreading-bearing interposed between the cutters, was old and the Double invention (regardless of who invented it) consisted solely and simply of additional minor elements combined with the features which appellees claim to be the Double invention (but which in reality was

the invention of other and prior inventors), such minor elements being the notched key fitting in a slotted rod; the upwardly and inwardly inclined dovetailed slipways; the hollow slotted extension with opposite parallel bearing-faces instead of tapering or inclined faces, as on the Swan or the Jones; those features in combination with a cutter having upwardly and inwardly inclined dovetailed shoulders to coact with the dovetails on the reamer body, and to have an inward projection, 26, at the back of said cutter for the purpose of coacting with the lower end of the hollow slotted extension, etc.

As Your Honors know, all of those specifically and clearly described elements which go to make up the combination disclosed in the Double patent in suit are each and every one essential and indispensable to the combination covered by the Double patent claims, as they are the very means of producing the "tilt," and other actions essentially characteristic of the Double reamer. Therefore, the hypothetical underreamer, or combination, rather, which counsel for appellee urged as being the underlying original Double invention and which Judge Cushman of the lower court erroneously accepted as being the Double invention, can in no sense be held to be the Double invention, for the reason that the reamer in suit included other elements which made up the invention and which are the distinguishing elements of the claims.

Accordingly, the Double claims are powerless as against other underreamers including the same hypothetical combinations, but not including the other elements and combinations of the claims, which Judge

Cushman failed to include in his statement of what the Double invention consisted.

Even erroneously assuming that Double invented the hypothetical combination Judge Cushman found to be his invention, the Wilson reamer does not contain it, for it has no tilting cutters, nor has it any dovetails on the body interrelated with any dovetails on the cutters. It has merely retaining cutter-ways and cutters with shouldered shanks.

A large amount of space is consumed in appellees' brief upon what purports to be a parallel comparison of the elements comprising the Double claims and the features of the Wilson undereamer. In this comparison it is to be noted that the elements of the Wilson device are described, not in the terms of the Wilson patent, but in the language of the Double patent claims. By calling the elements and parts of the Wilson reamer by the names of widely different parts in the claims of the Double device, the appellee professes to see the following elements appearing in both: The internal shoulder, 5, in the mandrel; the slip-suspending key in the spring-actuated rod; the opposite parallel bearingfaces of the hollow slotted extension, 6; the open-sided dovetail slip-ways, 9; the rounded lower end surface, 25, upon which the shoulders, 18, of the cutters ride in expansion; a hollow (in the mandrel) to allow rod II to work up and down; the key slot in the hollow slotted extension; tilting slips, 15, furnished with inward projections, 18.

We fail to find any other elements, specifically treated of in this purported comparison of the Double underreamer patent claims and the features of the Wilson underreamer and commented upon by appellees. However, prior and subsequent to this comparison the appellees' brief discoursed at length upon counsel's hypothetical combination of elements and modes of operation, consisting of dovetailed tilt slips acting in conjunction with dovetailed ways.

It is strange that the appellees do not point out the claims in their patent which secure this combination upon which counsel rests his case. In his minute discussion of the claims of the Double patent he has had ample opportunity to clear up this point, and it certainly belongs logically to that discussion. Yet he fails to show that this hypothetical combination is covered by any single claim in his patent. We consider this point to be an important part of the case simply because the appellees rest their case upon it, and we ask Your Honors to direct your attention to the fact that this hypothetical and imaginary combination, claimed by the appellees to be the substance of the Double invention, is not covered or suggested by any claim in the patent in suit. If this combination of the tilting action of the dovetail cutters in the dovetailed slip-waps at the sides of the downward extension of the mandrel or body were fully covered by the claims in the patent in suit, it would not be infringed by the Wilson underreamer in which the interrelation of the parts results in an entirely different mode of operation, that the Wilson cutters certainly do not "tilt," is fully proven by appellees' expert Knight, and the mode of operation during the collapsion of the cutters is entirely different in the two reamers, as we have pointed out. In the Double device in suit the slips

"tilt" over the spreading member. In the Wilson underreamer the cutters simply swing between the two spreading members. Their construction is different and their mode of operation is different.

In the whole of this comparison the appellees fail to prove that the Wilson underreamer contains the elements or has the same mode of operation of the reamer of the claims of the Double patent in suit; and the burden of proof was upon appellees to establish beyond a reasonable doubt that the Wilson reamer contained all of these elements and that their modes of operation were identical, due to the very requirements of the claims of the patent.

In the face of all these things, the hypothetical claim of appellees appears to be merely an hallucination of counsel's over-taxed brain, produced in his laborious efforts to reconstruct the Double patent to fit it to the exigencies of the case.

SUBDIVISION C OF DIVISION 2 OF DIAGRAM.

Appellee contends that "adoption" and "complete" success of the Double reamer entitled appellee to the benefits of a pioneer patent.

Appellee's brief and all of his witnesses refer constantly to what the Double underreamer now does and how it now operates. It is now an infringement of the Wilson patent, and has been ever since the failure of the original Double device covered by the patent in suit.

S. F. Peet, whose testimony is quoted on page 18 of appellee's brief [T. of R. p. 119], says:

"The percentage of the Double underreamer (sold) is very large."

Chas. P. Barnes, testifying for the appellant, and quoted on page 14 of the appellee's brief [T. of R. p. 117], says:

"During the last two years think we have sold about two hundred Double underreamers and six or eight Wilson underreamers."

Since all of these Double underreamers have been held to be infringements of the Wilson underreamer, as the original Double device had been abandoned long prior to the time the witness made this statement, this evidence proves the importance of the Wilson invention rather than the success of the Double reamer.

William E. Youle, who testifies for the appellee so vehemently that he becomes profane on the witness stand, says (appellee's brief p. 15):

"Now, if I saw that reamer hung on a stem swinging over the hole, I would be inclined to think they were using the Double (the witness points to the Wilson reamer in front of him.)"

This also refers to the similarity in appearance of the Wilson underreamer and its infringement by the Wilsonized Double. No experienced driller would ever be in any doubt as to the different appearance of the Wilson underreamer and the original Double device with its narrow slips which resembled those of the Swan.

Thomas J. Griffin, testifying for the appellees, says (appellee's brief p. 23, T. of R. p. 94):

"Stated that from seventy-five to eighty per cent of reamers used in California are Double reamers."

That is, they are Double's infringement of the Wilson underreamer.

The witness S. S. Frampton, testifying for the appellee, states (appellee's brief p. 30, T. of R. p. 429):

"Have used the Double reamer more or less ever since."

We have thoroughly established the fact that the reamer of the Double patent in suit was not a "complete success"; that it was not an underreamer of "great merit"; that it did not "supersede all other makes of underreamers"; but that on the other hand it was merely a trivial step in the art-possibly a slight improvement over the prior art, but was soon entirely abandoned; that the reamers testified of by Peet of the Fairbanks-Morse Co., and Barnes of the Cal. Natl. Supply Co., as having been sold by them, was not the Double reamer in suit, but was the infringing Wilsonized reamer. That, furthermore, even the combination Double-Wilson underreamers, which have been declared infringements of the Wilson patent, are far from a "complete success." See testimony of appellee's salesman, Mr. Youngken, page 546, of the record which reads, as follows:

"During the last two years in which I have been visiting the oil fields regularly, I do not remember of having seen a broken tee of spring-actuated mandrel of Wilson underreamer; I do not remember of having seen any broken Wilson underreamer cutters. On

the other hand, I have seen broken Double cutters practically every trip I make through the fields. I saw a broken Double underreamer body on my last trip through the fields, the same reamer or reamers I have seen at previous times. I don't recollect of seeing any new breakages in the underreamer or cutters within the last two or three months. I possibly have, but I do not recollect just the exact incident right now. There are a number of broken Double underreamer bodies which I have seen in the field during the last three months. The dovetails would be broken out of them."

Mr. Youngken has been employed by the Union Oil Company, the Union Oil Tool Company, and the Union Tool Company, for about twenty years. For several years he has represented the Union Oil Tool Company, spending about all his time in the field, traveling from one field to the other, making reports on the service of different tools, etc. He is probably the best informed man they have in their employ as to the use of various oil tools throughout the field. Therefore, his testimony in regard to breakage of the Double underreamers, and in regard to his failure to see or to know of any broken Wilson underreamer cutters and very little breakage at all of Wilson underreamers, shows very conclusively that it is not the Double underreamer which has been "the completely successful underreamer," even though such so-called Double underreamer includes some of the plincipal elements of the Wilson underreamer.

Hence, we submit that such sale and use of the Double underreamer of the patent in suit, which reamer has long since been abandoned, was never attended by

such adoption and successful use as would warrant Your Honors in according the Double underreamer patent any special privileges or any unusual allowances of the Doctrine of Equivalents.

As to the Third Division of Diagram of Appellant's Case:

As to counsel's contention that the Double patent, aided by a "liberal" allowance of the Doctrine of Equivalents, is sufficient to include within its scope the pronged type of Wilson underreamer: In support of counsel's contention, he relies chiefly upon the decision of the Supreme Court in Bates v. Coe, 98 U. S. 31. Regarding the scope of the Doctrine of Equivalents, the Supreme Court in that decision says:

"In determining about similarities and differ"ences, courts of justice are not governed merely
"by the names of things, but they look at the
"machines and the devices in the light of what
"they do or what office or function they perform,
"and how they perform it, and find that a thing
"is substantially the same as another, if it performs
"substantially the same function or office in sub"stantially the same way to obtain substantially the
"same result; and that the devices are substantially
"different when they perform different duties in
"substantially the same way, or produce substan"tially a different result."

"Calhoun v. Ring, 1 Cliff. 620."

We wish to quote from some other cases on the scope of the Doctrine of Equivalents, as follows:

"We know of no authority where a defendant "has been held as an infringer of a combination

"claim where he omits three of the elements "which make up the combination, he no longer "uses the combination. It is no answer to assert "that the omitted elements are not essential and "that the combination operates as well without "as with them."

Evans et al. v. Hall Printing Press Co., 223 Fed. p. 539.

"An infringement involves substantial identity, "whether that identity be described by the terms "same principle," same 'modus operandi' or any "other. \* \* The arguments used to show infringement assume that every combination of "devices in a machine which is used to produce "the same effect, is necessarily an equivalent for "any other combination used for the same pur-"pose. \* \* This is a flagrant abuse of the "term "Equivalent."

Burr v. Duryee, No. 1 Wall, 531, 572.

"To make one mechanical device the equivalent "of another it must appear that it not only pro"duces the same effect, but that such an effect is "produced by substantially the same mode of "operation."

5 Bann and A., 4.

See Walker on Patents,, Sec. 353, and cases cited.

So much has been said by counsel as to the extent to which the Doctrine of Equivalents can broaden the scope of the claims of a patent, that it certainly must be quite clear to Your Honors that counsel for appellees exceeds every bound of reason when he attempts to so extend that doctrine as to make it possible to read the

claims of the Double patent upon the Wilson underreamer. For instance, in regard to subdivision a of the third division of the diagram of appellee's case as shown herewith; to attempt to show that the pronged type of the Wilson underreamer is the equivalent of the hollow slotted extension type of the Double underreamer, such extension having opposite parallel bearingfaces, and with a slot or key-way, 7, also the upwardly and inwardly inclined dovetails, even with the assistance of the most liberal allowance of the Doctrine of Equivalents, counsel must show beyond reasonable doubt that the pronged construction of the Wilson underreamer produces substantially the same result, and that such result is produced in substantially the same way by substantially the same mode of operation. "If the defendant omits one or more of the elements which make up the combination, he no longer uses the combination." Furthermore, it must be remembered that "devices are substantially different when they perform in substantially the same way, or produce substantially a different result."

To prove sufficient differences to negative counsel's contention we will again call the attention of Your Honors particularly to the fact that the "opposite parallel bearing faces" of the hollow slotted extension of the Double underreamer cannot possibly cause expansion or contraction of the cutters while the cutters are moved either upwardly or downwardly and while contacting with those faces. On the other hand, the spreading-bearings, 9, on the edges of the lugs, 2', at the lower ends of the prongs in the Wilson underreamer body do give the Wilson cutters their initial collapsion

when drawn inwardly on said bearings, and also do produce the final expansion of the Wilson cutters when drawn upwardly into expanded position.

That difference in mode of operation alone is quite sufficient to negative any possible charge of infringement of the Double underreamer patent.

The upwardly and inwardly inclined dovetailed cutter-ways of the Double underreamer do, according to apellees' so-called experts, Knight and Griffin, under what they term "abnormal operations," produce a slight expansion and a slight contraction of the cutting edge of the cutters by causing the cutters to swing outwardly on the key when the cutters are collapsed, and by pinching the cutters together at their upper ends as the cutters are drawn upwardly into an expanded position, causing the cutters to slide inwardlyon the key, viz., to "tilt."

See testimony of so-called expert witness Griffin, T. of R. p. 624, answer to Q. 625, as follows:

"A. Well, if the tool is being expanded and contracted normally by going in and out of a shoe, there is no such movement; but if the tool is being expanded and contracted owing to the operation of the tools in a hole, and the hole pinching on the ends of the cutters, THEN THE UPWARDLY AND INWARDLY INCLINED DOVETAILS ACT UPON THE CUTTER AND ASSIST IT IN EXPANDING AND ALLOWS IT TO CONTRACT, BUT DOES NOT ASSIST IT IN CONTRACTING."

On the other hand, as to the action of the straight parallel ways, 2", of the Wilson reamer, they do not

and cannot cause or participate in any of the swinging pendulum-like action of the cutters, as Griffin admits in the following testimony [T. of R. p. 632, Q. and A. 664]:

"Q. 664. And under no circumstances, either due to the pinch or anything else, can the parallel dovetails on the body of the Wilson underreamer cause tilting of the cutters by engagement with the dovetails on the cutters—is that correct?

"A. Yes, that is correct."

It should be particularly noted that this is an entirely different mode of operation from the expansion and contraction of the Wilson underreamer cutters due to the inclination of the Wilson underreamer bearingfaces, o, for the reason that, with the Double underreamer, their experts admit that expansion of the Double cutters while bearing upon the opposite parallel faces of the hollow slotted extension takes place only during "abnormal" conditions, and that such is produced by the inclined dovetails. Furthermore, that such an expansion and collapsion is due to a contact at the opposite side of the fulcrum or pivotal point of the cutters from that which takes place with the Wilson underreamer. Clearly such a contraction and expansion of the Double underreamer cutters is a "teetering" or, as Double states it, a "tilting" action of the cutters, due to the cutters sliding inwardly or outwardly upon the key and causing an opposite travel of the cutting edge of the cutters. Now, with the Wilson underreamer cutters, the collapsion takes place owing to the inclination of the bearings, 9, of the Wilson underreamer body and has no effect whatever upon the upper ends of the cutters, or at the point of contact upon the solid tee head to which the cutters are suspended. The cutters remain absolutely stationary upon the tee head at that point, owing to the fact that they are confined closely between the head of the tee and the parallel retaining shoulders of the Wilson underreamer body, and there can be no travel of the cutters upon the tee while so confined and while expanding or contracting. The cutters swing pendulum-like from the tee, and their expansion is produced entirely by being drawn upwardly upon the lugs of the Wilson underreamer body, and collapsion is produced by the cutters being drawn downwardly until the cutters are drawn entirely off of and below the lugs of the reamer body.

It certainly requires no expert knowledge whatever to readily discern that the mode of operation whereby the Wilson underreamer cutters are expanded or collapsed is totally different from that of the Double underreamer; that the prongs of the Wilson underreamer body can in no sense be considered the equivalents of the hollow slotted extension of the Double underreamer body. The hollow slotted extension of the Double underreamer body is, at all times, interposed between the cutters, whether the cutters are being expanded or contracted. The Double cutters must "tilt" on the key and "teeter" over the lower end of the hollow slotted extension. That is not at all the operation of the Wilson underreamer cutters. As has been pointed out repeatedly to Your Honors, the Wilson underreamer cutters swing pendulum-like between the prongs: they do not slide or titlt on the tee. They are so constructed by means of lateral shoulders with bearing-faces, 4<sup>3</sup>, on said shoulders to contact with the separated or spaced spreading-bearings, 9, on the Wilson underreamer lugs, that when they are collapsed the SPREADING MEANS, viz., the *lugs of the Wilson underreamer prongs*, ARE ENTIRELY WITHDRAWN FROM BETWEEN THE CUTTERS. The difference in mode of operation and the difference in construction and principle of action from that of the Double underreamer certainly must impress Your Honors as being very marked indeed.

The interposed spreading-bearing in the Double required the working V-shaped notch, 26, in the cutter. It is not present or needed in the Wilson.

Another great difference between the pronged type of Wilson underreamer and the hollow slotted extension type of the Double is that with the Double underreamer, as will be seen indicated, the slot, 7, performs a function which does not exist at all in the Wilson underreamer body, viz., it forms a guide for the key.

In regard to that slot, Thomas J. Griffin, their socalled witness, testifies on page 107 of the record as follows:

"Inasmuch as the Wilson underreamer is an extended fork it is not necessary to have a slot."

In view of the very great importance of this slot, 7, of the Double underreamer body and the functions it performs, the Wilson underreamer body of the pronged type *having no slot* or key-way, nor is such slot necessary, as testified to by Griffin as quoted above, it cannot possibly be held to be the equivalent of the hollow

slotted extension type of the Double underreamer body. The leading cases quoted above establish the rules which are all we need to rely upon when considering the differences in the principle of action and modes of operation just noted and resultant avoidance of infringement.

This slot 7 of the Double underreamer body performs still another very important function, and, which we have previously pointed out, is accomplished in the Wilson underreamer by an entirely different means; we refer to the oft mentioned function of the slot 7 of the Double underreamer body, serving as a stop for the downward travel of the key, limiting the travel of the cutters when collapsing and preventing them trom being withdrawn entirely from their slip-ways. Were it not for such a stop, the cutters would be lost in the hole. We have called Your Honors' attention to this marked difference in construction, and pointed out the function and the purpose of the slot 7 of the Double underreamer body extension on pages 86 and 87 of our opening brief. We then called attention to the fact that that marked difference alone completely refuted the opinion of the lower court that the Wilson pronged type of underreamer body is the equivalent of the narrowly claimed hollow slotted extension type of the Double underreamer body.

It is interesting to note the reply of counsel for appellees to that highly convincing point of our defense. On page 190 of his reply brief he states:

"While it is true that the end portion of the "Double reamer which forms the lower end "of the slot 7 serves as a stop for the downward

"travel of the spring-actuated rod, key and cutters, "so also does the cross-piece II or bottom bolt "of the Wilson reamer."

That is all the reply counsel could muster to our argument on that point which of itself is so strong and convincing as to completely negative any charge of infringement.

How can counsel hope to prevail in this case, when the meager and deceptive reply just noted is the only answer he can make to that highly important point? The answer he gives is not only evasive but is entirely false, as we will point out. Counsel's deliberate misrepresentation is one of the most flagrant which has come to our attention in all the litigation we have experienced in which counsel has opposed us. Counsel knows very well that the detachable cross-piece II or safety bolt of the Wilson underreamer body never contacts with the tee and that, consequently, it can in no wise form a stop for the downward travel of the tee and the cutters. Furthermore, counsel knows very well that the detachable cross-piece II of the Wilson reamer is for an entirely different purpose, viz., to prevent loss of the cutters in the hole in the event of breakage of the suspension means.

See the testimony of Williams, T. of R. p. 854:

"The purpose of the safety bolt in the Wilson reamer "is to prevent the mandrel-bar (tee) from dropping "out, in case the key should break, or the mandrel "should break; prevents the cutters from dropping in "the hole and losing them."

(The "key" here referred to is the spring-supporting key of the Wilson Improved reamer.)

As we have previously pointed out, the Wilson underreamer was provided with entirely different means for limiting the downward travel of the cutters. See E. C. Wilson's testimony, T. of R. p. 157:

"There being no slot in the Wilson underreamer "body for the suspension-means to travel in; conse-"quently there is nothing for the suspension-means to "strike against, the downward compression of the "spring being limited, not by the lower extremity of the "key-slot, as in the case of the Double, as the Wilson "has no such key-slot, but the piece of pipe which is "placed over the tee-bar and underneath the spring. "This pipe is cut to such a length that when the spring "is compressed to the point desired, the pipe strikes "against the nut on the tee-bar and prevents the spring "from compressing any farther. This is a very differ-"ent operation from that of the Double, as will be "noticed. Double has no such pipe in his underreamer "to stop this compression of the spring at the proper "place. He depends on the bottom of the key-slot."

Your Honors will notice this pipe construction is to be seen on one or two of the tees of the Wilson underreamer, which are among the exhibits in this case. The pipe will be found in place underneath the springs on the tees.

Now, with the Wilson Improved underreamer, viz., the later type of Wilson underreamer, which has the slotted tee and the single piece key for holding the cutters in suspension in the reamer body, the upper end

of the slot in the tee striking on the stationary key serves as a stop, thus limiting the downward travel of the cutters. This is another entirely different means, as will be observed, for obtaining the desired result.

It is hard to conceive a more striking illustration of differences in construction, principles of action and modes of operation than those just indicated in connection with the slot 7 of the Double underreamer. Clearly the rule of Evans *et al.* v. Hall Printing Press Co., 223 Fed. p. 539, is precisely upon this point. We again quote therefrom:

"If the defendant omits one or more of the "elements which make up the combination, he no "longer uses the combination. It is no answer to "assert that the omitted element was not essential "and that the combination operates as well with-"out as with them."

To digress briefly we must remember that the Jones Round Nose reamer has all the features of the Double reamer excepting the slot 7 and the detachable key 17, guided and stopped thereby.

Their own expert, Griffin, admits that the Wilson underreamer has no such slot, and that such a slot is not necessary with the pronged type of underreamer. We have already indicated to Your Honors that not only do we dispense entirely with such slot 7 forming a guide for the key, one of the functions of the slot 7 of the Double underreamer, but for the other function, viz., the stop, we employ entirely different means. This point alone is another entirely adequate and sufficient point to establishing our contention that the pronged type of Wilson underreamer can in no wise be

held to be the mechanical equivalent of the hollow slotted type of the Double underreamer body.

Your Honors may remember the illustration which we have of the argument of this cause pertinent to the difference between the hollow slotted extension type reamer and the pronged type reamer. We called Your Honors' attention to the fact that Judge Cushman implies in the decision in this case that by building in a web the prongs of the Wilson reamer and providing it with a hollow and a slot the Wilson reamer can be made into the hollod slotted extension type of The illustration we used concerned a spade and a fork, and we pointed out to Your Honors that it was completely mechanically inconsistent to say that a spade is merely a fork with the space between the prongs or tines filled in, and that therefore the spade and fork are equivalents inasmuch as it is impossible to use the spade for prongs for which a fork is extended and vice versa. We likewise called Your Honors' attention to the confusion of the witness Griffin when asked to produce a sketch showing both the hollow and the slot, in different colored ink, and which he, for a long time, contended were both present in the Wilson fork reamer construction. Griffin and Knight, however, were forced to admit that these features, namely, the hollow and the slot, which are specifically defined and located and confined by metal in the Double hollow slotted extension, were only confined there in possible counterpart in a single open space between the prongs of the Wilson reamer. As we pointed out, it would only have been possible therefore for Griffin

to have so illustrated these two features in the Wilson reamer by making the inks of the two different colors.

Counsel for appellees has fallen into another serious trap set by himself, namely, that he has insisted both that the prongs of the Wilson reamer are the equivalents of the hollow slotted extension of the Double reamer and that the space between such prongs is the equivalent of such hollow slotted extension. festly, inasmuch as things which are equal to the same thing are equal to each other, he forces himself to the assertion that the space between the Wilson prongs is the same thing as the Wilson prongs them-This illustrates the impossibility with which selves. appellees are confronted in this case, namely, the impossibility of making out any rational condition of equivalence as applying to the elements of the Double patent claims and the features of the Wilson invention.

There are other sound reasons why the differences are so marked as to remove the Wilson reamer from any possible assumption that it is the mechanical equivalent of the Double hollow slotted type, among which is the fact that the Wilson underreamer prongs are provided, not with upwardly and inwardly inclined dovetails, as is the body of the Double underreamer, but with inwardly projecting parallel straight shoulders forming cutter-ways. There are no grooves or dovetails forming cutter-ways on the Wilson underreamer body. On the other hand, the cutter-ways of the Double underreamer are formed by planing grooves which are upwardly and inwardly inclined.

As Judge Cushman has held the dovetails of the Double underreamer body are so constructed that when

interengaged with the dovetails Double underreamer cutters, they form inner, outer and lateral bearings. Such is entirely impossible, as we have before indicated, with the Wilson underreamer, as they have no such "inner" bearings.

The inner bearings of the Wilson reamer for the cutters are on the tee and on the luge 2', neither of which elements is to be found in the Double reamers.

We firmly believe that Your Honors will give scant attention to any further contention of counsel for appellee that the pronged type of Wilson underreamer body is the equivalent of the Double hollow slotted extension type.

## Subdivision b of Division Three of Our Diagram of Appellee's Case:

We have before called attention to the fact that the straight and parallel cutter retaining shoulders, 2", on the inner faces of the prongs of the Wilson underreamer body can in no wise be held to be the equivalents of the upwardly and inwardly inclined dovetails of the Double underreamer body. Their construction is entirely different, the dovetails of the Double body being produced by planing grooves, while with the Wilson reamer the retaining shoulders are projections and not grooves at all. In the case of the Double underreamer cutters. In fact, they permit the "tilting" of the Double underreamer cutters which, as is clearly indicated, is one of the absolutely necessary and essential features of the mode of operation of the Double underreamer cutters, and which causes or permits the cutters to collapse over the lower end of the hollow slotted extension. Such a mode of operation is entirely impossible and cannot be produced by the straight and parallel retaining shoulders of the Wilson underreamer body. They in no wise cause or permit expansion or collapsion of the Wilson cutters. It is not only quite obvious that they cannot do so, but appellees' expert witnesses, Knight and Griffin, both admit that they can in no wise contribute to the collapsion or expansion of the Wilson underreamer cutters. See all testimony of expert W. W. Wilson, T. of R. p. 363:

"The Wilson underreamer is the only one the dovetails of which are solely for the purpose of holding the cutters in the reamer body. With the Swan and Double underreamers the dovetails on the reamer body perform a dual function, namely, retaining means and also expansion means."

Clearly appellees' contention that the retaining shoulders of the Wilson are the equivalent of the Double upwardly and inwardly inclined dovetails is absolutely fallacious.

As to subdivision c of the third division of our diagram of appellees' case:

That the tapering or inclined bearings 9 on the lugs at the lower end of the prongs of the Wilson under-reamer body can in nowise be held to be the equivalents of the opposite parallel bearing faces of the Double underreamer body, will be quite clear to Your Honors when it is remembered that, as we have pointed out above, the inclination of those bearings 9 performs a function of giving the cutters the initial collapsion and final expansion of the cutters. We have clearly pointed

out to Your Honors that the opposite parallel bearing faces of the hollow slotted extension of the Double underreamer body can in nowise produce collapsion or expansion of the cutters. True, these bearings form inner hearings for the cutters when in an expanded position as do the opposite parallel bearings of the Double hollow slotted extension, but instead of being opposite parallel bearing faces on the hollow slotted extension, or stationary wall or partition which is at all times interposed between the cutters, they are separated, spaced bearings at the ends of the prongs of the Wilson underreamer, and which expand the cutters in an entirely different way from the "abnormal" expansion occurring while the Double shoulders 18 ride over opposite parallel bearing faces of the Double underreamer extension 6, which "abnormal" expansion is due to the inclination of the dovetail cutter ways 9. They are so constructed and so interrelated with the bearings on the lateral shoulders of the Wilson underreamer cutters as to cause expansion and to permit complete collapsion of the cutters between them as the cutters are drawn downwardly. They are entirely removed from between the cutters when the cutters are in a collapsed positions. The differences between these bearings on the lugs of the Wilson underreamer body and the opposite parallel bearing faces of the hollow slotted extension of the Double underreamer are very great indeed. Mechanical equivalency cannot possibly exist.

See the testimony of the appellee's witness Griffin, wherein he points out that to remove the spreading

bearings of the Double reamer, leaving an open space as in the Wilson, the Double reamer would then be inoperative. T. of R. p. 642:

"With the 'Defendant's Exhibit Double underreamer' and with 'Complainant's Exhibit Double Underreamer with Enlarged Slot' should the spreading portion of the surfaces of the lower end of the body be removed such reamers would be entirely inoperative."

As to subdivision d of division three of diagram:

The one-piece body of the Wilson underreamer, being of the pronged type, permits a mode of operation which is impossible with the Double, viz., that of assembling the cutters, tee and spring at the bottom of the reamer and between the prongs without the necessity of disengaging a middle joint in the reamer body (Wilson reamer body has no middle joint), which mode of operation differs entirely from that of the Double underreamer. Furthermore, this pronged construction of the Wilson underreamer body permits remachining of the Wilson underreamer body, another operation which is utterly impossible with the Double underreamer body. The pronged type of the Wilson underreamer body permits the use of heavier and stronger cutters, broader cutters and better braced cutters, and avoids the dangers of the middle joint.

It would be difficult to imagine two underreamer bodies having greater differences, more differences in principles of action and modes of operation, or one having more marked advantages over the other. The differences may be clearly discerned by even a casual comparison of the Wilson underreamer with the Double underreamer. Clearly there is no mechanical equivalency existing there.

In order to support counsel's contention as set forth in our subdivision e, viz., that the open spaced pronged formation of the Wilson underreamer, or the space between the prongs, is the equivalent of the hollow and slot of the Double hollow slotted extension, we find counsel rising to the very zenith of his efforts to practice legerdemain. His efforts to accomplish this supernatural feat in his attempt to deceive the court by his dexterity is so amazing in its presumptuousness as to merit the special attention of Your Honors. Undoubtedly Your Honors have never before been confronted by such an amazing effort on the part of an attorney at law. WE FIND COUNSEL ACTUALLY AT-TEMPTING TO CONVINCE YOUR HONORS THAT THE OPEN SPACE WHICH LIES BETWEEN THE PRONGS OF THE WIL-SON UNDERREAMER BODY IS BOTH HOLLOW AND SLOTTED. In other words, that that open space is equivalent in construction to those elements of the Double underreamer, consisting of the bore or hole drilled vertically to accommodate the spring actuated rod, and the slot 7, which serves as a guide for the detachable notched key, and also serves as a stop for the key, and the opposite parallel bearing faces for the cutters.

We invite Your Honors to pause and consider how presumptuous and how preposterous are counsel's efforts in this regard.

Probably never before has an attorney presumed on the intelligence of a federal court to such an extent as to endeavor to convince them that a certain open

space or cavity or void can be hollow or slotted, much less to be both hollow and slotted; or that such a space could in any sense be the equivalent of a key-way or slot which forms a guide for a key which moves vertically therein, or forms a stop for a key to limit its travel one way or the other; or that such an open space could be regarded as being hollow in the same sense that a hole drilled in a piece of metal is hollow to form an opening or a guide for a spring actuated rod; or that such open space between the prongs of the Wilson underreamer can in any sense be held to be the equivalent of the hollow slotted extension, having opposite parallel bearing faces upon which the cutters of such underreamer can be expanded and held in expanded position while reaming. Yet, Your Honors, that is precisely what counsel would have Your Honors believe.

True, counsel endeavors to so confuse the minds of this court by juggling the element 7, namely, the slot of the Double underreamer (and Your Honors will observe that there is no other slot mentioned in either the specifications of the Double underreamer patent or the claims thereof) with the open dovetailed slipways 9 of the Double underreamer patent, that cour Honors will be unable to disassociate the one from the other; and that what is clearly described in the Double underreamer patent as "upwardly and inwardly sloping, tapering dovetailed slipways 9" will finally appear to Your Honors as taking the shape and function of a slot, and will finally be so regarded by Your Honors.

Of course such a juggling by counsel of the elements clearly described by the Double patent in his efforts to accomplish his purpose will be given slight heed by Your Honors.

Why does counsel resort to such unseemly practice? Why does he so boldly attempt to practice such deception before a court of such dignity?

The reasons are clear: Counsel is trying to sustain the decision to which he was never entitled. He resorted to the same absurdities when arguing before Judge Cushman, but unfortunately His Honor (for whom, and from whose judicial ability, we have the highest respect) had not had the patent law experience necessary to fortify him against such unscrupulous methods. Counsel having successfully urged such fallacies before the lower court, and knowing that Judge Cushman's decision was founded thereon, knows full well that he must establish his same fallacious contentions before this court or his case of necessity must fail.

The hollow slotted extension 6 of the Double underreamer is one of its very chief and most essential elements, and if the Wilson underreamer cannot be shown to have the same elements or their equivalents, the charge of infringement must inevitably fail.

Thus, in desperation, counsel is obliged to urge the preposterous fallacies of which his entire case is constructed.

Therefore, counsel's efforts as set forth in our subdivision e must be regarded as simply frantic attempts to establish equivalence where none exists. As to subdivision f of division three:

We have repeatedly so clearly pointed out the differences in the principles of action and modes of operation produced by the two lugs 2' at the ends of the prongs of the Wilson underreamer body with their inclined faces 9, from those of the opposite parallel bearing faces of the extension 6 of the Double underreamer, that we think nothing need be said further in order to convince Your Honors that those lugs 2' cannot possibly be held to be the equivalent of the hollow slotted extension 6 with opposite parallel bearing faces, of the Double underreamer body.

### As to division g of division three:

The detachable block of the Wilson underreamer body which serves as a seat for the spring, and also the removable key of the Wilson improved underreamer, which performs the same service, are each a very different device from the shoulder 5 of the Double underreamer body. True, they form a seat for the spring, but they do so in an entirely different manner. being detachable, which of itself totally changes the mode of operation, providing the new and only satisfactory method of assembling a reamer, and also permitting renewal of wornout reamers which theretofore was impossible with any kind of reamer. In fact, so important was this removable spring seat feature considered by appellee corporation that it eliminated the fixed shoulder 5 from the Double underreamer, and in their infringing type F reamer in case No. 2018 we find this single piece key spring seat which was the key of the litigation in Wilson et al. v. Double et

al., 227 Fed. 607, previously referred to. So important was that change that separate patents were issued upon the combination including the same, one to Wilson and one to Double and Bole; the latter patent, after the above-mentioned litigation, having been declared void because Bole and Double surreptitiously obtained the same. The detachable and the removable spring seat are certainly not like the Double shoulders 5 in construction. In fact, they are so different as to entirely differentiate them from the Double shoulder 5, nor can they be held to be mechanical equivalents of that shoulder.

### As to subdivision h of division three:

We need say nothing more, we fully believe, to convince Your Honors that the Wilson shanked cutters, having shoulders projecting laterally and with bearing faces thereon to co-act with the lugs of the Wilson underreamer body, and which swing pendulum-like on the solid forged Tee instead of "tilting" upon a loose, detachable key, and which collapse completely between the prongs and lugs of the reamer body instead of "teetering" over a hollow slotted extension, and which have no inwardly projecting shoulders like 18 of the Double underreamer cutters, and which have no V-shaped grooves across the backs of the cutters, are so radically different in construction and so different in their mode of operation as to be entirely beyond the scope of the Double underreamer patent, even were it proper to invoke the aid of the most liberal allowance of the Doctrine of Equivalents. Their expert witness Griffin admits that there are no V-shaped grooves across the backs of the Wilson cutters, yet we need not rely on such admission as the exhibits of the Wilson cutters speak for themselves in that regard.

In fact Griffin states positively that the V-shaped groove or recess at the back of the Double cutters are the very means for causing expansion of the Double cutters. This V-shaped groove is produced by the inclined face 26 of the cutter.

See Griffin's testimony, T. of R. p. 112:

"I have never seen the Double cutter that did not have a recess on the inner face for the purpose of CAUSING EXPANSION of the cutters.

I do not find such formation in the Wilson cutters.

\* \* \* The expansion of the Wilson underreamer cutters takes place by the cutters engaging the narrow side spaces or edges of the prongs, while with the Double underreamer this expansion takes place by engaging the cutters with the broader faces of the intermediate slotted extension."

In fact, all the differences in construction of the Wilson underreamer when compared with the Double underreamer are so obvious and so absolutely apparent to anyone even of very slight knowledge of mechanics that we often wonder why we should burden Your Honors with a lengthy discussion of such apparent differences in construction and interrelation of parts, principles of action and modes of operation, when such can be determined by Your Honors by simply a casual glance at the exhibits or at the patents. We are firmly convinced that by far the greater portion of the contentions of counsel for appellee in argument and in

briefs as well as a large portion of our argument and briefs in reply thereto will be promptly disposed of by Your Honors as being so lacking in importance as to require none of Your Honors' attention. Your Honors will promptly seek out the differences in construction as disclosed by the exhibits themselves and by the patents and specifications thereof, and no doubt will promptly perceive that the Wilson underreamer is a radical departure, both in construction and interrelation of elements and principles of action and modes of operation from any underreamer which preceded it; and that the Double underreamer patent, even allowing it the most liberal application of the Doctrine of Equivalents, cannot possibly be infringed by the Wilson underreamer.

### As to subdivision i of division three:

That the solid forged Tee of the Wilson underreamer is a radically different device from the slotted rod and detachable notched key of the Double underreamer is, of course, strikingly apparent. True, they both suspend the cutters in the reamer body; nevertheless, it is equally true that the modes of assembling the cutters in the reamer body is a vastly different operation by reason of the differences in construction and principles of action of those two devices. It would be utterly impossible to use the solid forged Tee of the Wilson underreamer in a Double underreamer body. It could not possibly be assembled in that body, which of course must be very apparent to Your Honors.

See testimony of appellee's expert witness Knight, T. of R. p. 810:

"If you had a fixed T-head at the lower end of the spring-actuated rod of the Double underreamer, you could not assemble the spring-actuated rod and cutters in the manner disclosed in the Double patent."

Counsel's contention that the Wilson solid forged Tee is the equivalent of the notched key and slotted rod is simply another one of his fallacies.

As to subdivision j of division three:

That the principle of action and mode of operation of the Wilson cutters mounted upon the solid Tee, and swinging "pendulum-like" when they collapse or expand between the prongs of the Wilson underreamer are entirely different from that of the Double underreamer cutters, which tilt or slide upon the notched key while they are being collapsed or expanded over a stationary wall or partition, viz., the hollow slotted extension 6, which at all times is interposed between the cutters; and which cutters are partially collapsed or expanded by means of the upwardly and inwardly inclined dovetailed slipways,—such differences, we say, are altogether too obvious to require any further discussion. No stretching of the rule of the Doctrine of Equivalents can cover up the fact that their constructions are entirely different, that different results are produced, and that such different results are produced by different principles of action.

See testimony of expert witness W. W. Wilson, T. of R. p. 360:

"In expanding the Wilson underreamer cutters their sole means of expansion is the inclined faces or spread-

ing bearings at the lower ends of the prongs of the reamer body. With the Double underreamers the cutters are expanded partly by the spreading wall or partition, namely, the lower end of the hollow slotted extension, and partly by the teetering action of the cutter on that partition due to the upper end of the cutter following the upwardly and inwardly inclined dovetailed ways."

Hence, they cannot possibly be held to be mechanical equivalents.

### As to subdivision k of division three:

As just pointed out above, the initial collapsing of the Wilson underreamer cutters by co-acting with the inclined bearing faces 9 on the lugs of the Wilson underreamer body can in nowise be regarded as the equivalent of the principle of action and mode of operation of the Double underreamer cutter. The constructions are radically different, the means for collapsing and expanding the cutters as well as the modes of operation resulting therefrom are so obviously different from that of the tilting cutters of the Double underreamer as to require no further argument to convince Your Honors that counsel's contentions in that regard are entirely erroneous and misleading.

### As to subdivision 1 of division three:

That the detachable cross piece or safety bolt II of the Wilson underreamer prongs can in nowise serve as a stop for the downward travel of the cutters has been clearly pointed out before in this brief, and also in our opening brief. The safety bolt or detachable

cross piece can in nowise be considered the equivalent of the bottom of the slot 7 of the Double underreamer. Counsel's contention in that regard is a wilful misrepresentation. He knows full well that that safety bolt or detachable cross piece II of the Wilson underreamer body performs an entirely different function, viz., that of a safety device for preventing the loss of the cutters in the event of breakage, say, to the Tee; and that, furthermore, he knows full well that that detachable cross piece II of the Wilson underreamer body cannot possibly contact with the Tee unless such a breakage would occur. Therefore, he knows that he misstates the facts in the argument he advances that it is the equivalent of the bottom of the slot 7 of the Double underreamer. Furthermore, he knows full well that other means are provided in the Wilson underreamer for limiting the downward travel of the cutters. Such means he knows to be the pipe so adjusted on the T-bar and underneath the spring as to limit the compression of the spring and, in turn, limiting the downward travel of the cutters. He also knows that in the Wilson improved underreamer the top of the slot in the Tee co-acting with the stationary key performs that function. Counsel's attempt to deceive Your Honors in this regard is strikingly apparent.

### As to subdivision m of division three:

The retaining shoulders 2" on the inner faces of the prongs of the Wilson underreamer body are for simply one purpose, viz., they retain or hold the cutters in place upon the Tee. They perform no part whatever in the expansion or contraction of the Wilson cutters.

In nowise can they form "inner bearings" as do the dovetails of the Double underreamer. Judge Cushman's failure to fully understand the function of these retaining shoulders on the inner faces of the prongs of the Wilson underreamer body led him into the error of finding that they were the equivalent of the dovetails of the Double underreamer in that, as he states in his opinion, "they form inner, outer and lateral bearings." The interengagement of these retaining shoulders on the prongs of the Wilson underreamer body with the shoulders on the shanks of the Wilson underreamer cutters can, under no circumstances whatever, produce such an interengagement as to form "inner, outer and lateral bearings." They may form outer and lateral bearings but not inner bearings. They are not alike either in form or in modes of operation. They cannot possibly be the equivalents of the dovetails of the Double underreamer.

### IN REPLY TO SUBDIVISION N OF DIVISION THREE:

The only elements or combination of elements of the Wilson underreamer which are in common with the Double underreamer are such as those which might be expressed in very broad terms; such as the hollow body or mandrel; the spring actuated cutter suspension-means; and cutters expanding over spreading-bearings; The prior art precludes Double or anyone else from monopolizing such constructions. Any monopolies obtainable must be limited to the particular changes or the particular interrelation of parts or the combinations thereof and the modes of operation produced thereby, and which may be the subject of a pat-

ent. The rule of the Doctrine of Equivalents cannot possibly suffice to grant the Double patent any monopoly beyond the particular combination of elements claimed therein, even granting that Double be the inventor of the reamer of that patent and that the Double patent in suit is valid or that it is unanticipated by the Jones round-nosed reamer, the O'Donnell and Willard underreamer, the Brown underreamer, the Swan underreamer and many others

#### As to the fourth division:

In view of the conclusive proof that there is not one single feature disclosed by the Double patent in suit, much less any combination of such features or elements covered by that patent, which has a counterpart in the Wilson underreamer, and that not one single equivalent for any such element or combinations thereof is to be found in the Wilson underreamer as shown above; and furthermore, in view of the extremely narrow scope to which the limited claims of the Double patent must necessarily be confined; and further, in view of the radically different and novel construction and operation of the Wilson underreamer, its vastly superior construction and great improvement in the art, its general adoption, and the complete abandonment of the Double underreamer covered by patent in suit, it must be quite clear to Your Honors that there is not one syllable of authority to be found in the entire subject of patent law which will support the decision of the lozver court.

Certainly the Doctrine of Equivalents cannot be so distorted and so perverted as to give sufficient scope to the Double patent that it may include the new and radically different patented Wilson pronged type of reamer.

Having thus pointed out to Your Honors that the several essential and fundamental elements of the Double combination are not to be found in the Wilson reamer, nor are any of the Wilson elements even remotely equivalent to those of the Double reamer, and, having such in mind, Your Honors will perceive how farcial are counsel's efforts in endeavoring to read the claims of the Double patent on the totally different structure of the Wilson reamer. Also, the biased and absurdly exaggerated statements of appellees' main witnesses, Griffin and Knight, appear doubly ludicrous and false. Obviously their testimony is a parrot-like recital of preposterous expressions taught them by counsel for appellees, and frequently is contrary to the facts. We are constrained to say, "the truth is not in them "

We wish at this point to briefly quote from and cite leading and apt authorities, gleaned from the mass of the law as it stands today, supporting our points and contentions on this appeal.

Much has been said regarding the absolutely limiting language of the Double patent in suit pertinent to the opposite parallel bearing faces of the hollow slotted extension 6. We find the same limitation as to parallel relations in O'Brien-Worthen Co. v. Stempel, 209 Fed. 847, from which we quote the following:

"Two amendments of the new claim were, however, exacted and made before the examiner appears to have been satisfied that it was in correspondence with the features just pointed out. The first amendment of the new claim required that the side walls of the cargo hold should be vertical and parallel, not merely part of their length, but 'throughout their entire length,' and the second one required that the side walls should be 'unobstructed from bottom to top.' When these amendments are read in connection with the first amended claim, it will be seen in the first place that the shape of the new hold is defined with exceptional clearness and imperative exaction. It must be a 'central longitudinal trunk' extending 'from front to rear,' with 'vertical side walls parallel throughout their entire length."

## Continuing further, the court said:

"These latter requirements, like the others, were based on references to specified patents. These, in the judgment of the examiner, like the Shone patent in the first instance, were sufficient to warrant his rejections, and the effect was to induce Campbell to meet them with satisfactory amendments. It is not necessary to examine those patents with any purpose either of defining the prior art or of otherwise justifying the action of the patent office. It is sufficient that Campbell acquiesced in the rulings, instead of taking the prescribed course of appeal."

In the same connection as to the absolutely limiting language of the Double patent, see:

Safety Oiler Co. v. Scoville, 110 Fed. 203, 205; Brill v. St. Louis Car Co. (C. C. A., 8th Cir.), 90 Fed. 666, 668;

American Stove Co. v. Cleveland Foundry Co. (C. C. A., 6th Cir.), 158 Fed. 978, 983; Morgan Envelope Co. v. Albany Paper Co., 152 U. S. 425, 429.

We further quote from the recent case of Thatcher v. Transit Const. Co., 228 Fed., at page 906 et seq., as follows:

"Furthermore, the patentee must be presumed to have meant what he said. He has described a particular construction and in his claim he has stated that it is this particular construction upon which he desired to secure a monopoly. Such selfimposed limitations are always recognized precluding a patentee from showing that the invention is broader than his claims, and, if broader, he must be deemed to have surrendered the surplus to the public. Railroad Company v. Mellon, 104 U. S. 112, 119, 26 L. Ed. 639; White v. Dunbar, 119 U. S. 47, 51, 52, 7 Sup. Ct. 72, 30 L. Ed. 303; McClain v. Ortmayer, 141 U. S. 419, 12 Sup. Ct. 76, 35 L. Ed. 800. This proposition was clearly stated in White v. Dunbar, supra, where the court said:"

In White v. Dunbar, supra, the court said:

"Some persons seem to suppose that a claim in a patent is like a nose of wax, which may be turned and twisted in any direction, by merely referring to the specification, so as to make it include something more than, or something different from, what its words express. The context may undoubtedly be resorted to, and often is resorted to, for the purpose of better understanding of the meaning of the claim but not for the purpose of changing it, and making it different from what it is. The claim is a statutory requirement, prescribed for the very purpose of making the patentee define precise what his invention is; and it is unjust to the public, as well as an evasion of the law, to construe it in a manner different from the plain import of its terms."

"The meaning of the words 'each pair of a bar being independent of the other' is not doubtful, and there is nothing in the case which justifies its being expunged from the claims. Brookfield v. Elmer Glass Works, 154 Fed. 197, 83 C. C. A. 180. Tested by these well-settled rules of construction, the ultimate question is, in the defendant's structure upon which the charge of infringement is predicated, are the bars independent of each other? In my opinion, they are not, and, if they are not, the patent is not infringed."

That the Double patent covers merely a trivial improvement and is not in any sense pioneer, in view of the prior art and on the face of the patent itself, see McCormick v. Talcott, 20 Howard 402. Also the important case of Railway Co. v. Sayles, 97 U. S. 554, in which the court says that the party who invents a machine never used before, acquires by his patent a monopoly as against all merely formal variations thereof; but if the advance toward the thing desired is gradual, and proceeds step by step, each inventor is entitled only to his specific form of device. From the opinion we quote:

"Like almost all other inventions, that of double brakes came when, in the progress of mechanical improvements, it was needed; and being sought by many minds, it is not wonderful that it was developed in different and independent forms, all original, and yet all bearing a somewhat general resemblance to each other. In such cases, if one inventor precedes all the rest, and strikes out something which includes and underlies all that they produce, he acquires a monopoly, and subjects them to tribute. But if the advance toward the thing desired is gradual, and proceeds step by step, so that no one can claim the complete whole, then each is entitled only to the specific form of device which he produces, and every other inventor is entitled to his own specific form, so long as it differs from those of his competitors, and does not include theirs. These general principles are so obvious, that they need no argument or illustration to support them. We think they are specifically applicable to the case before us."

Regarding the Jones round-nosed reamer and other devices not before the patent office, Hopkins on Patents, Vol. I, page 28, section 13, says:

"Where the history of the application for the patent shows that the patent office did not refer to and consider the references which are urged against the validity of the patent in litigation, the court must determine the weight and effect to be given such references, as a matter of first impression, and the failure of the patent office to cite such references may wipe out the ordinary presumption of validity attendant upon the grant."

# Walker says in section 340:

"Any person may accomplish the result performed by a patented thing without infringing the patent, if he uses means substantially different from those of the patent. To hold the contrary of this rule would be to retard, and not to promote the progress of the useful arts."

Also Robinson on Patents, section 527, says:

"A claim for a combination covers the exact combination claimed, and nothing more. It does not protect the elements of the combination nor their mode of union, nor their co-operative law, separately considered. It does not embrace any other union of the same elements with each other, or with additional elements, nor a combination of a portion of these elements among themselves. Where it omits certain elements, it excludes them from the combination, though they are in fact essential to it as an operative means; and where it treats certain elements as necessary they cannot afterwards be declared by the inventor to be unnecessary, although the real invention was complete without them."

If the Double invention was complete without limitation to hollow slotted extension, upwardly and inwardly sloping dovetail ways, and inwardly projecting shoulders on the cutters, etc., etc., why were all of such limiting elements put in the claims? The answer is, that these elements all taken together are what Double put before the patent office as his invention. Thus his invention is not found in the defendant's reamer.

Mere results are not patentable, as see Hopkins on Patents, Vol. 1, section 39, at page 80, in which it is said, quoting from Fuller v. Yentzer, 94 U. S. 288:

"Patents for a machine will not be sustained if the claim is for a result, the established rule being that the invention, if any, within the meaning of the patent act, consists in the means or apparatus by which the result is obtained." And further on:

"The question of identity of result is an important factor in the determination of questions of infringement, but as results are not patentable, there may be identity of result without the existence of infringement as identity of result is no evidence of infringement unless substantially the same means operating in substantially the same way, have been employed."

Also see Walker on Patents, section 340, which states as follows:

"The respective results of a machine or manufacture covered by the claim of a patent, and of a machine or manufacture alleged to infringe that claim, do not furnish a criterion by which to decide the question of infringement. (Citing Westinghouse v. Boyden Power-Brake Co., 170 U. S. 562.) Those results may be identical while the things which produce them are substantially different. Any person may accomplish the result performed by a patented thing without infringing the patent, if he uses means substantially different from those of the patent. To hold the contrary of this rule would be to retard, and not to promote the progress of the useful arts."

See also section 341, Walker on Patents, as to mode of operation and its relation to determining infringement.

That Double could not be the inventor of what he did not invent, and that therefore that Jones should have been applicant or joint applicant for the patent in suit and that the patent is invalid, Walker on Patents, section 46, says:

"Every machine, before it can be used, must be constructed as well as invented. If one man does all the inventing and another does all the constructing, the first is the sole inventor."

Also see Quincey Mining Co. v. Krause et al., 151 Fed. 1012, to the effect that (page 1017):

"If a claim covered a single idea, it would be difficult to conceive how it could be patented by two; but, when a claim covers a series of steps or a number of elements in a combination, the invention may well be joint, though some of the steps or some of the elements may have come as the thought of but one."

See also Consolidated Bunging Apparatus Co. v. Woerle, 29 Fed., at page 451:

"It may be that the conception of the entire device is due to but one of them; but the other makes a suggestion of practical value in working out the idea, and making it operative. But that suggestion may be the very thing the first one failed to think of, and it was needed to make the conception a success."

As supporting our contention that it was the Wilson reamer which kept the Double reamer in the field after the advent of the Wilson, it was said in Star Hame Mfg. Co. v. United States Hame Co., 227 Fed., page 883 (C. C. A.):

"In reaching this conclusion we are not unmindful of the insistence that the favor with which plaintiff's hame device was received in the market tends to show invention. While such favor is in some instances helpful and persuasive, it never is where the device is clearly lacking in the attri-

bute of invention (Autosales Gum & Chocolate Co. v. Caille Bros. Co., 224 Fed. 473, 476—C. C. A.—(C. C. A., 6th Cir.) and further, as we have seen, the device of the present plaintiff included the Shurghnor patented improvement, as well as the supposed equivalent of the spring which the patent in suit added to Shurghnor, and hence the sales shown have slight relevancy to the question of invention. It follows that the claims of the patent in suit are invalid and void. The decree must be reversed in each cause, and the causes remanded, with costs, and with direction to dismiss both bills."

Because of limitation by the prior art this court in Morton v. Llewellyn, 164 Fed. 693, found no infringement, counsel for appellees in the case at bar being there counsel for the losing patentee.

Further as to the controlling propriety of narrowly construing the Double patent in suit, see:

Cimiotti Unhairing Co. v. American Fur Refining Co., 198 U. S. 399;

Reineke et al. v. Dixon-Woods Co., 102 Fed. 349;

Westinghouse Electric & Manufacturing Co. v. Condit Electrical Mfg. Co., 159 Fed. 150;

Union Steam Pump Co. v. Battle Creek Steam Pump Co. et al., 104 Fed. 344 (C. C. A.).

See Robinson on Patents, Vol. 1, p. 228, as follows:

"A combination is a union of elemental means in a mode of co-operation; and, as such, it necessarily performs functions into which all its elements enter as operative agents, and produces results which depend upon the presence and action

of every one of the elements combined. The identity of a combination depends upon that of its elemental means and that of the co-operative law under which its elements are united; any substantial change in either means or law destroying its identity and resulting in the final segregation of the elements or in a new and wholly different combination \* \* A patented combination is the combination described and claimed in the patent, i. e., it is composed of the described elements co-acting under the described co-operative law, whether or not such description accurately enumerates the true elements or sets forth the real mode of their co-operation."

"A combination is a group of instruments or operations united under a co-operative law. Its identity depends upon the presence in the combination of each one of these elements or its equivalent, and upon their co-operation in this specific manner to produce the ultimate result. Hence any change in the number of its elements, or in their essential character, or in their made of co-operation, is a departure from the substance of the combination, and constitutes a different invention. A patented combination is the combination described and claimed in the patent which protects it. Of whatever elements it may actually be composed and whatever may be the method of their union as the inventor conceived and practices his invention, the elements specified in the patent, and the co-operative law there described, are those which characterize the patented combination and form the subject of the exclusive privileges of the patentee. The infringement of a combination patent, therefore, consists in the manufacture, use, or sale of any combination in which

precisely the same elements or their equivalents are united under the same co-operative law. To make or use or sell a combination in which the same elements are differently combined, or a combination which comprises only a portion of these elements, though the discarded elements are practically useless, and though the combination thus created was suggested by the former, is not an infringement."

Rich v. Baldwin, Tuthill & Bolton, 133 Fed. 923 (C. C. A.);

Duncan et al., v. Cincinnati Butchers' Supply Co. et al., 171 Fed. 665 (C. C. A.).

So, in Russell v. Winchester Repeating Arms Co., 148 Fed. 390:

"The law is settled that the combination of an alleged infringing device is not that of the patent because it will do the same work in one of the several operations which it is designed to effect in substantially the same way, and it does not infringe when it is not only structurally different, but performs the other operations in a substantially different way. Is not the complainant in worse plight when the alleged infringing device is not only structurally different, but does not perform by reason of its combination various functions which are inherent necessities of the patented combination, and have been specifically pointed out in the specifications? In short, the 'brace' of the disclosure cannot be found in defendant's construction."

American Can Co. v. McGinnis et al., 156 Fed. 785;

Westinghouse Air Brake Co. v. New York Air Brake Co., 119 Fed. 884 (C. C. A.).

As was said in White v. Dunbar, 119 U. S. 47, 7 Sup. Ct. 72, 30 L. Ed. 303:

"It is an injustice to the public, as well as an invasion of the law, to construe it (the claim) in any manner different from the plain import of its words."

"The fourth claim is not infringed."

Henry Huber Co. v. J. L. Mott Iron Works. 113 Fed. 604;

American Chocolate Machinery Co. v. Helmstetter, 1442 Fed. 982 (C. C. A.).

and, again, in Wessel v. United Mattress Mach. Co., 139 Fed. 15 (C. C. A.):

"It is a well settled rule, often repeated in varying forms of expression, that where two inventors improve an old machine, each is entitled to the benefit of his own improvement, so long as it differs from that of the other, and does not include his. In the present case the improvements differ completely. Only in the result accomplished is there any similarity."

Dey Time Register Co. v. The Syracuse Time Recorder Co., 152 Fed. 442;

Central Foundry Co. v. Coughlin, 141 Fed. 95 (C. C. A.).

In Collins v. Dunlap & Co., 180 Fed. 776:

"It is quite apparent from this quotation that the 'collar' is an element of each of these claims. Inspection of the alleged infringing article shows that it does not contain the 'collar' of the patentee. "The motion for preliminary injunction is denied."

Consolidated Store-Service Co. v. Siegel-Cooper Co. et al., 103 Fed. 489.

That the Wilson reamer is a distinct entity, the issue of the patent amounting to recognition that such different entity exists, is borne out in Imperial Bottle Cap & Machine Co. v. Crown Cork & Seal Co., 139 Fed., at page 329, from which opinion we quote as follows:

"In sustaining the validity of Painter's patent, we referred to the principle, which is well settled, that the grant of a patent is prima facie evidence of patentable novelty. The same principle may be invoked in behalf of defendants. Painter's patent is specifically referred to in Abbott's application, and the patent office had before it Painter's and all the other patents showing the state of the art when the patent was granted. It was designed to accomplish the same functions as Painter's, and on its face it discloses and claims a substantial difference, and could not have been consistently granted if it were substantially the same as Painter's. The grant of it therefore must be considered as expert evidence, of high and impartial character, of nonidentity, and raises a fair presumption of patentable difference in its favor, which requires strong evidence to overcome. We are not satisfied that the plaintiffs have succeeded in so doing, and, in our opinion, there has been no infringement.

"It follows, therefore, that the judgment of the court below should be reversed, and the case remanded, with directions to dismiss the bill.

<sup>&</sup>quot;Reversed"

Further as to the limited scope of the Double patent see Werner v. King, 96 U. S. 218, in which it was said:

"It is not only necessary to an infringement that the arrangement which infringes should perform the same service, or produce the same effect, but, as Mr. Justice Nelson said in Sickles v. Borden (3 Blatchf. 355), it must be done in substantially the same way. Burr v. Duryea, I Wall. 531."

"The difference in the shape or form of the guides in these machines is not the only one. They operate on entirely different principles."

Again on this pioneership question see Union Match Co. v. Diamond Match Co., 162 Fed. 148, at page 155. See also:

Kokomo Fence Machine Co. v. Kitselman, 189 U. S. 8:

National Hollow Brake Beam Co. et al. v. Interchangeable Brake Beam Co., 106 Fed. 693;

O. H. Jewel Filter Co. v. Jackson, 72 C. C. A. 304, 140 Fed. 340;

Mahoney v. Jenkins et al., 138 Fed. 404.

Also, it was said in Duff Mfg. Co. v. Forgie, 59 Fed. 774, 8 C. C. A. 261:

"Language by which the comprehensive boundaries of a claim are to be made distinctive and clear lies wholly within the selection of the inventor. He alone may choose the words to describe and particularize his invention. When chosen and used, such words must be held to be binding upon him."

The court says further:

"In a combination patent all the elements are material. Water Meter Co. v. Desper, 191 U. S. 337."

That the Jones round-nosed reamer must anticipate, inasmuch as counsel notified Jones that it infringed, see Peerless Rubber Mfg. Co. v. White, 118 Fed. 835 (C. C. A.):

"It is a well established rule that 'that which infringes, if later, would anticipate, if earlier'; and, conversely, that a device cannot be held to be an infringement unless it would have been held, if used earlier than the patent, to have been an anticipation thereof. Tobacco Co. v. Streat, 28 C. C. A. 18, 83 Fed. 700."

Counsel has so exhaustively argued and cited authorities in his briefs for appellee in cause No. 2918, as to the kind of things he calls abandoned experiments in this case when dealing even with such patented things as the O'Donnell and Willard reamer and the Brown reamer, that we believe Your Honors will be convinced that his arguments in this case cannot be sincere when directed against these prior devices, preceding the Double reamer, and actually within the real prior art. Clearly, patented devices can hardly be abandoned experiments.

That there was no real invention in the Double reamer over the Jones round-nosed reamer fully known to Double before his alleged invention of the device of the patent in suit, see Apple v. American Shoe Machinery & Tool Co., 232 Fed., at page 606, in which the court said:

"Putting the Hoffman patent in its most favorable light, it is very little, if anything, more than an aggregation of prior well-known devices, each constituent of which aggregation performs its own appropriate function in the old way. Where a combination of old devices produces a new result such combination is doubtless patentable; but where the combination is not only of old elements, but of old results, and no new function is evolved from such combination, it falls within the rulings of this court in Hailes v. Van Wormer, 20 Wall. 353, 368 (22 L. Ed. 241); Reckendorfer v. Faber, 92 U. S. 347, 356 (23 L. Ed. 719); Phillips v. Detroit, 111 U. S. 604 (4 Sup. Ct. 580, 28 L. Ed. 532); Brinkerhoff v. Aloe, 146 U. S. 515, 517 (13 Sup. Ct. 321, 36 L. Ed. 1068); Palmer v. Corning, 156 U. S. 342, 345 (15 Sup. Ct. 381, 39 L. Ed. 445); Richards v. Chase Elevator Co., 158 U. S. 200 (15 Sup. Ct. 831, 39 L. Ed. 991). Hoffman may have succeeded in producing a shelf more convenient and more salable than any which preceded it, but he has done it principally, if not wholly, by the exercise of mechanical skill."

In this connection the other prior devices are also to be borne in mind, and the court's attention is drawn to Marshall v. Wirt, 232 Fed., third paragraph, page 608.

See also third paragraph, 232 Fed., at page 869, Zimmerman v. Advance Machinery Co.

Judge Wolverton of this Circuit Court has ably discussed the question of infringement of a narrow combination patent in Denny Renton Clay and Coal Co. v. Portland Cement Pipe & Tile Co. et al., 232 Fed. at page 894.

That mere mechanical improvements are often devoid of invention and not patentable, see syllabi Hansen v. Slick, 230 Fed. 627.

In this connection, and particularly with respect to the Jones round-nosed reamer, see Keene v. New Idea Spreader Co., 231 Fed., fifth paragraph, at page 710.

Wilson made a new combination of elements, and the same having a different mode of operation from Double, cannot infringe, as within the language of Klauber-Weldon Dyeing Mach. Co. v. Giles *et al.*, 231 Fed., second paragraph, at page 755, which we quote as follows:

"It is clear, I think, that Giles made a new combination of old elements, and that, while he produces the same result as does complainant, he does not have the same combination of elements, or a combination made up in part of equivalents differently located, or elements changed in form and construction merely. There is not sufficient identity in the performance of their functions between the elements of the two machines. I am constrained to the conclusion that defendants do not infringe."

That claims in patents for minor improvements in an art already well understood should be strictly construed, see

American Graphophone Co. v. American Parlograph Corp., 235 Fed. p. 137.

We believe this case falls clearly within the healthy doctrine announced by the court in Lovell-M'Connell Mfg. Co. v. Oriental Rubber & Supply Co., 231 Fed. 719, at page 725:

"No attempt to ruin a competitor's business or to drive it out of the market by malicious or unfair and unlawful dealings can hope to succeed in a court of justice. No court will be astute to aid an enterprising patentee in an undertaking of that sort. We do not intend to reflect upon the conduct of the particular patentee in the case at bar. He has done nothing unlawful. And we have no evidence that his conduct has been malicious. But a patent issued under the circumstances which attended the issuance of this one, and indeed any patent the validity of which is challenged, will be closely scrutinized for the protection of the public against a monopoly not authorized by the law. The patent in suit fails in this case, as did the prior patents in Lovell-McConnell Mfg. Co. v. Garland Automobile Co., supra, because of lack of invention.

"Decree reversed."

Finally, we know of no better way to describe and characterize the conduct and presumptuous contentions of appellees and their counsel in this cause than to quote the language of the Honorable Learned Hand, district judge in the Southern District of New York, in DeLaski & Thropp Circular Woven Tire Co. et al. v. United States Tire Co., 232 Fed. 884, at page 887, as follows:

"Men's lives and liberty depend upon no such meticulous casuistry as is often invoked to save a patent, and I can see no supreme public interest in subjecting an art to the monopoly of a supposed first inventor, by the exercise of perverse and arbitrary incenuity to put askew all reasonable proof that others have come into the field before him."

Counsel would have it that letters patent should be issued with a frank or "carte blanche" appendix to the grant, mainly blank spaces within which claims could be written for the purpose of expanding, piecing out and stretching the monopoly to fit and envelope any meritorious competitor. This is certainly an overstraining and over-patronizing of the most liberal doctrines of patent law, which certainly are not to be applied in the case at bar.

What is there left for appellees to rely on? By what unheard of and unknown process of reasoning can the decision of the lower court be sustained?

We have shown that Jones was at least a coinventor and, accordingly, that the Double patent should be declared invalid.

We have clearly shown that the Double underreamer was anticipated by the Jones round-nosed reamer, which was suppressed by Double's notice of infringement; that it was anticipated by the O'Donnell and Willard underreamer; was anticipated by the Brown underreamer; and, in many of its most essential points, was anticipated by such reamers as the Swan, the Canadian underreamer and many others.

We have shown Your Honors that, contrary to counsel's contention, the Double underreamer was merely a transitory step in the art, that it in no wise superseded other prior underreamers, which, as a matter of fact, lasted long after the Double reamer had been abandoned, viz., the Plotts, the Austrian underreamer, the Swan underreamer, and others.

We have also shown conclusively that the Double underreamer covered by patent in suit was abandoned

years ago, and as strong evidence of that fact we were unable to find a single specimen of that reamer in the entire state which we could offer as an exhibit of a specimen of the underreamer as disclosed by the Double patent in suit!

We have shown that the underreamers which appellee has been selling almost, if not quite, exclusively since the Wilson underreamer was placed on the market in 1905, are—as Judge Cushman found—infringements of the Wilson underreamer patent and are in no wise entitled to be called Double underreamers, and certainly reflect no credit on the old abandoned Double underreamer covered by the patent in suit.

We have shown that only a very very small percentage of the underreamers manufactured by appellee were Double underreamers covered by patent in suit. So small in number were they that it is absurd to contend that they took the field and that they superseded all others. Clearly Judge Cushman had in mind the *infringing* underreamers of the Double make when giving Double credit for having sold so many underreamers and for having taken the field, and that his reamer was one of decided merit, etc., etc. *The Double underreamer in suit was entitled to no such credit*.

The claims of the Double underreamer patent speak for themselves. Admittedly they are merely combination claims covering questionably new organization of old elements, with certain necessarily definite mode of operation, and as such must be limited to the particular combinations set forth therein.

We have conclusively shown that the Doctrine of Equivalents cannot so extend the scope of the Double patent as to give it the exaggerated scope appellees claim for it.

We have shown that contrary to appellees' contention, infringement is avoided where an element is divided into two separate parts if such changes the mode of operation and provides new functions. In addition to that point, the Wilson prongs have spreading-bearings of an entirely different nature producing a different mode of operation and affording advantages and improvements not found in or realized by the Double construction. Furthermore, in the Wilson reamer there is not a subdivided opposite parallel bearing-faced extension. The lugs 2' are no part of such an extension.

We have clearly shown that the Wilson underreamer is one of novel construction, being superior in strength, superior in expansion and width of cutters and reaming efficiency, superior in endurance and strength, and superior in convenience and safety. In short, that it was the "last step in the art," and that it has superseded all other styles of underreamers except those which have been declared infringements of the Wilson patent.

We have also shown that the Wilson underreamer is covered by good and valid patents, and in case No. 2918, now before Your Honors, that practically all the underreamers manufactured by appellee corporation since the year 1905 or 1906 are infringements of the Wilson underreamer patent!

Furthermore, we have shown that the prior art makes it absolutely necessary so to construe the Double patent claims as to limit them strictly to the particular combination of elements recited therein; and that as such they cannot possibly be so extended in scope as to take in the Wilson pronged type of underreamer.

And finally, and what is of very great importance, we have shown that Judge Cushman of the lower court unfortunately based his decision on five (5) palpable errors:

In other words, his decision was based on a combination of errors. Had any one of the errors been omitted, he could, under no circumstances, have found the Double patent infringed.

The combination of errors referred to is as follows:

First: His error in finding Double to be the sole and original inventor of the Double underreamer in suit, due to his misunderstanding of the testimony quoted from the Mills-Double Interference suit.

Second: He entirely misunderstood the mechanics of the prior art of which the Jones round nosed underreamer, the Brown underreamer and the O'Donnell & Willard underreamer are probably the most important.

Third: He erred in that he failed to realize that the Double underreamer in suit was a short step in the art, that it was so highly unsatisfactory that it was soon abandoned; and that later types of the Double underreamers, namely, the infringing types, and which he found "Constituted Combinations of decided merit, entitlting complainant's to a fair range of equivalents," were not the Double underreamer of the patent in suit, and conse-

quently the Double reamer of the patent in suit is in no wise entitled to that credit.

Fourth: That he erred in his opinion as to the scope of the Double underreamer patent of narrow and limited combination claims, and the flexibility to which it was entitled by the application of the "fair range of equivalents."

Fifth: He erred in not recognizing the Wilson pronged type of underreamer to be novel and a radical departure from the hollow slotted extension type, or type having an extension interposed between the cutters, such as the Double underreamer, the Swan underreamer, the Jones underreamer, the O'Donnell and Willard underreamer, and the Brown underreamer, etc., etc.

We wish to emphasize the fact that, as Your Honors will observe, the omission of any one of the above five errors would have made it impossible for Judge Cushman to have found the Double underreamer patent infringed.

Finally, we wish to point out that this action was instituted by the appellees as a part of what this record proves to be an attempt to drive the appellant out of the manufacturing of underreamers. In bringing this action the appellees undertook to prove beyond a reasonable doubt that the Wilson underreamer contains the same combination of elements and the same mode of operation as the Double underreamer covered by the claims in patent No. 734,833. The burden of proof was upon the appellees to establish their case. We

submit that they have hopelessly failed to do so. The combination that they have alleged to be infringed is not covered by any claim in the Double patent in suit, and we have proven conclusively, that the mode of operation they claim for the Double device, including the "tilting" of the slips during their collapsion and expansion, is totally different from the mode of operation found in the Wilson reamer.

We invite the attention of this court to the case which is cited throughout the appellees' brief and upon which appellees rest their case, viz., Bates v. Coe, 98 U. S. 31, for we are confident that a study of these underreamers will show that they are substantially different because they perform different duties in a substantially different way, and produce substantially a different result.

We confidently submit that the decree of the lower court should be reversed and the bill dismissed.

Respectfully,

RAYMOND IVES BLAKESLEE,

Solicitor and Counsel for Appellant.

## SUPPLEMENT.

Dealing with the Misrepresentations, Untruths and Distortions in Appellees' Brief.

Repeatedly in the litigation now and previously before Your Honors involving the same general interests represented in this suit, we have found it necessary to point out to Your Honors the glaring departures made by appellees' counsel from the facts and law. Again we find it our duty to put before you further instances of this sort, and reasonable limits of this brief will not permit us to touch upon all these instances. Again and again we find reported authorities not only incorrectly quoted from, but garbled and even reversed in meaning and substance by counsel's tricky procedure. In places counsel includes in his brief as quoted matter what in reality is merely counsel's distorted digest or summary of the substance of the decision. Thus we see that counsel is not only guilty of attempting to make over the patent in suit and its claims, as well as the evidence and testimony in the case in his frantic efforts to support the lower court's findings of infringement, but counsel is likewise guilty of revamping and making over the law as it stands to bolster up and support his unmeritorious case.

We illustrate herewith some of the most flagrant examples of misquoted authorities:

COUNSEL'S VERSION.

On page 130 of the brief:
"Infringement cannot be escaped by merely cutting in two a device made in one piece, or by making integral an article formerly made in two."

THE TRUE VERSION

"Infringement c a n n o t ordinarily be escaped by merely cutting in two a device made in one piece, or by making integral an article formerly made in two."

Counsel would have it that the rule is inflexible. It is not. There must have been a deliberate omission of the word "ordinarily," for the present case is one in which infringement is escaped by providing two parts for a given purpose, and, therefore, does not fall under the rule, as counsel would make it.

Clearly under the law when provision of two parts in place of one produces different results and permits of performance of new functions the rule asserted by counsel does not apply. That is the situation in the case at bar. That our view is correct is shown by Nathan *et āl.* v. Howard, 143 Fed. 889 at page 893, where it is said:

"Neither the joinder of two elements into one integral part accomplishing the purpose of both and no more, nor the separation of one integral part into two, together doing precisely or substantially what was done by the single element, will evade a charge of infringement."

Bundy Mfg. Co. v. Detroit Time Register Co., 94 Fed. 524, 538, 36 C. C. A. 375;

Dowagiac Mfg. Co. v. Brennen, 127 Fed. 150, 62 C. C. A. 257."

COUNSEL'S VERSION.

On page 132 of brief:

"A specific description of an element in a claim does not operate as a limitation to the form shown unless it is of the essence of the invention, and evasion of the specified form will not escape infringement when the substance of the invention is copied, as a court does not judge about similaries or differences by the names of things, but looks to the machines, or the several devices or elements, in the light of the function they perform."

THE TRUE VERSION.

"All concur in the view that a specific description in the claim of an element in a claim does not operate as a limitation to the form thus shown unless it is of the essence of the invention, and evasion of the specified form will not escape infringement where the substance of the invention is copied: that courts are not to judge about similarities or differences by the names of things, but are to look to the machines, or the several devices or elements, in the light of what they do or what office or function they perform and how they perform it."

In finding equivalence it is important to consider how the function is performed. This part of the citation counsel omitted, hoping thereby to escape the other important feature of the test, namely, how the function is performed. COUNSEL'S VERSION.

On page 138 of brief:

"It does not follow, from the fact that the claim describes a specific form or construction, that the inventor shall be limited to that form."

On page 130 of brief:

"The placing of stops at the top of the track of a guide for punching presses instead of at the side, and the arrangement of a reciprocating rod to work vertically instead of laterally, does not avoid infringement." THE TRUE VERSION.

"It does not necessarily follow, from the fact that the claim describs a specifis form of construction, that the inventor shall be limited to that form."

"The difference between the respondents' machines and Conley's device is solely in form. In substance they are the same. The respondents, instead of placing their stops at the side of the track, as Conley showed in his specification, placed them above or on top of the track and their reciprocating rod works vertically instead of laterally."

On page 128, what is purported to be quoted from 151 Fed. is not found in the opinion and is merely a reporter's syllabus, and yet counsel quotes it.

On page 124 of brief:

"A combination is a composition of elements, some of which may be old and others new, or all old

"A combination is a union of elements, which may be partly old and partly new, or wholly old

or all new. It is, however, the combination that is the invention and is as much a unit in contemplation of law as a single or noncomposite in strument. Whoever uses it without permssion is an infringer of it. Whoever contributes to such use is an infringer of it."

or wholly new. It is, however, the combination that is the invention, and is as much a unit in contemplation of law as a single or noncomposite instrument. Whoever uses it without permission is an infringer of it. Whoever contributes to such use is an infringer of it."

The most flagrant instance of law-twisting by counsel appears at the bottom of page 122. It will be seen that counsel chops the terminal sentence in two, robbing it of its true meaning, which is the opposite of that appearing by the purported quotation, and directly against counsel's contentions.

COUNSEL'S VERSION.

On page 122 of brief:

"The object of the law authorizing the grant is to stimulate invention by this reward to the inventor. It must be administered in conformity with this liberal policy, as a wise exception from the common law against monopolies. So the exclusive privilege of the patentee must be protected to the full extent

THE TRUE VERSION.

"The object of the law authorizing the grant is to stimulate invention by this reward to the inventor. It must be administered in conformity with this liberal policy, as a wise exception from the common-law rule against monopolies. So the exclusive privilege of the patentee must be protected to the full extent of his inven-

of his invention and grant."

tion and grant, while its limitations are to be strictly observed to prevent interference beyond the fair scope of valid grant with improved means or other inventions, the promotion of which is the constant view of the patent policy."

The quotation from 171 Fed., on page 123 of the brief, is likewise a syllabus and not in the opinion. The same may be said of the following quotation.

Counsel wilfully distorts the opinion in 56 U. S., quoted from on page 196 of appellees' brief, leaving out the terminal portion of the sentence which is damning to counsel's case, in view of the limitations of the patent in suit. Comparison will show this.

Counsel's Version.

On page 196 of brief: "And, therefore, the patentee having described his invention and shown its principles and claimed it in that form which most perfectly embodies it, is in contemplation of law deemed to claim every form in which his invention may be copied. \* \* \*"

THE TRUE VERSION.

"And, therefore, the patentee, having described his invention and shown its principles and claimed it in that form which most perfectly embodies it, is in contemplation of law deemed to claim every form in which his invention may be copied, unless he manifests an intention to disclaim some of these forms."

If Your Honors will refer to the authorities further instances of garbling and mis-stating of the same will be found at the following places in appellees' brief. In places also counsel quotes matter which is not found in the respective opinions at all:

The quotation from 89 Fed., at page 13;

The quotation from 164 Fed., at page 38;

The quotation from 13 C. C. A., at page 40, is not found in the opinion at all;

See also the quotation on page 43 from 142 Fed.; Likewise, quotation from 151 U. S., same page;

The quotation from 18 Wall., on page 30;

The quotation from 127 Fed. 161., same being a syllabus and not part of the opinion;

The purported quotation 215 Fed., commencing at page 70, which seems to have sentences arbitrarily incorporated by counsel;

The purported quotation from 204 Fed., on page 72;

The quotation from 219 Fed., on page 73;

The quotation from 124 Fed., on page 83;

That from 143 U.S., on page 85 of the brief, cannot be found in the opinion;

The purported quotation from 98 U. S., commencing on page 96 of the brief, is run together as continuous when in fact it consists of separated fragments;

The same performance is found in quoting from 152 Fed. (132), at the bottom of page 120 of the brief;

See also purported quotation from 179 Fed., page 121 of brief, and from 19 Wall., page 122 of brief;

Counsel's rendition of the opinion in his quotation on page 123 of the brief, 142 Fed., is purely arbitrary editing of the opinion;

Counsel omits part of the sentence quoted from in 166 Fed., on page 124 of brief;

Again we find the court's opinion arbitrarily edited by counsel, on page 127 of brief, in quoting from 143 Fed.;

We find the same performance in quoting from 115 Fed., on page 131 of the brief;

Also quoting from 120 Fed., at page 132 of brief, we find the same editing performance;

We fail to find the matter quoted from 180 U. S., at page 153 of brief;

A syllabus is set forth as a quotation from the opinion in 152 Fed., on page 189 of brief;

Counsel likewise quotes from opinions matter therein quoted from prior cases, as if same appeared in the opinions themselves, and performs other sleight-of-hand tricks, such as italicizing where no italics appear, which may be the least of his questionable doings in the category under consideration.

We will now deal briefly with certain other unconscionable and fallacious fragments of appellees' brief, of a different kind.

We quote from page 68 of appellees' brief as follows:

"Both Mr. Jones and his partner, Mr. Skinner, admit that in October, 1902, they received a notice from Mr. Double and the Union Tool Company that such reamer [the Jones removable bowl reamer] was claimed to be an infringement upon Mr. Double's inventions, and notifying Jones and Skinner to stop the manufacture."

Mr. Skinner makes no allusion whatever in his testimony to this notice.

This notice referred to the Jones round-nosed reamer, and not to the removable bowl reamer, as the testimony clearly shows on T. of R. pp. 903 and 907.

We quote again from appellees' brief, on page 70, as follows:

"The testimony of Frederick W. Jones that he had anything whatever to do either with the invention of the Double reamer, or even with the manufacture of the first Double reamer, is in fact without any corroboration whatever."

As to this statement of counsel, we simply refer Your Honors to the testimony of Richardson, Naugle and Mrs. Jones. Also Skinner's testimony, taken with that of Haskett and Shaw, supports Jones' testimony, instead of impeaching it, as stated later on, on this page of appellees' brief.

Appellees' brief states, page 81, as follows:

"Mr. Jones does not testify that he hadanything whatever to do with either the inventing of the second Double reamer, made in 1901,—the one like the patent in suit."

The testimony of Jones speaks for itself and shows this to be untrue.

Speaking of this Jones round-nosed reamer, on page 83 of appellees' brief, counsel states:

"There is no proof that Mr. Jones ever sold one of the 'round nose' reamers. The only proof is that he contrived it, made a wooden model of it, and abandoned it in favor of another construction which he thought would be operative and better." To refute this false statement, see testimony of Jones, T. of R. p. 897, as follows:

"We made several reamers of the type disclosed by the wooden model" (Jones round-nosed reamer) "and sold them.—That was in 1901 and '2."

There is in evidence a working underreamer of this type, which makes absurd counsel's statement that merely a wooden model was made.

Appellees' brief says on page 147:

"Mr. Elihu C. Wilson testifies that he had the Double reamer before him when he produced the first Wilson reamer. That he was seeking to improve the Double reamer."

There is no such testimony.

The testimony of Mr. Wilson is that he was seeking to devise a radically new reamer which would overcome all of the serious defects of all other reamers then known, including the Double.

To emphasize the falsity of this statement of counsel and to show how differently Wilson proceeded in devising his radical invention, see testimony of Elihu C. Wilson, R. I. 140, et seq.

We insert here illustrations and explanations by cut, which make absurd counsel's attempts to support Judge Cushman's erroneous finding that the shoulders or cutter-ways of the Wilson reamer body afford inner, outer and lateral bearings for the cutters, in the same manner that the dovetailed slip-ways of the patented Double reamer afford such three kinds of bearings.



Section view of Double Under-Reamer showing interlocking dovetails of body, and cutters providing inner, outer and lateral bearing for the Cutter.



Section view of Wilson
Under-Reamer showing
shouldered Cutter ways
providing outer, lateral but
no inner bearing. Cutters
are not interlocked hence
no dovetails.



It is pitiable to note that counsel, on page 162 of appellees' brief, tries to make it appear that Judge Cushman referred to the upthrust bearings 8 of the Double patent, rather than to the inthrust bearings 6, when referring to the inner bearings for the cutters resulting from the interrelation of the dovetails. Clearly, these upthrust bearings 8 have nothing to do with the interrelated dovetails.

Respectfully,

RAYMOND IVES BLAKESLEE,

Solicitor and Counsel for Appellant.

